

## SEARCH REQUEST FORM

## Scientific and Technical Information Center

Requester's Full Name: Rebecca Bachner Examiner #: 75880 Date: 6-24-02  
Art Unit: 3623 Phone Number 305-1872 Serial Number: 09/537800  
Mail Box and Bldg/Room Location: 7A01 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Method + Apparatus for Corporate Voting  
Inventors (please provide full names): Steven Wallman

Earliest Priority Filing Date: 3/29/2000

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Voting for shareholders, computer proxy voting system

\*\*\*\*\*  
STAFF USE ONLY

## Type of Search

## Vendors and cost where applicable

|                                           |                                                   |                        |
|-------------------------------------------|---------------------------------------------------|------------------------|
| Searcher: <u>[Signature]</u>              | NA Sequence (#) _____                             | STN _____              |
| Searcher Phone: <u>703/308-7795</u>       | AA Sequence (#) _____                             | Dialog <u>\$800.00</u> |
| Searcher Location: <u>ELC 3600/804</u>    | Structure (#) _____                               | Questel/Orbit _____    |
| Date Searcher Picked Up: <u>6-25-2002</u> | Bibliographic <input checked="" type="checkbox"/> | Dr.Link _____          |
| Date Completed: <u>6-25-2002</u>          | Litigation _____                                  | Lexis/Nexis _____      |
| Searcher Prep & Review Time: <u>65</u>    | Fulltext _____                                    | Sequence Systems _____ |
| Clerical Prep Time: _____                 | Patent Family _____                               | WWW/Internet _____     |
| Online Time: <u>150</u>                   | Other _____                                       | Other (specify) _____  |

US-PAT-NO: 6112188

DOCUMENT-IDENTIFIER: US 6112188 A

TITLE: Privatization marketplace

----- KWIC -----

Brief Summary Text - BSTX (45):

Shareholder control over top management and the board of directors in the context of extremely widespread shareholdings can be facilitated by several policy choices: the modulation of corporation law, shareholder **voting using polling techniques and the delegation** of authority.

Brief Summary Text - BSTX (48):

Shareholder control can also be concentrated by delegation of authority. Delegation of investment authority can provide market discipline as delegatee-organizations perform investment research resulting in the sale of shares of under-performing enterprises. Sales of a particular enterprise's shares would tend to depress the share price, reducing the value of compensation shares to the management or workers. Recipients of compensation stock in well-performing enterprises would likewise be rewarded by share purchases increasing the stock price. **Delegation of voting** authority can also concentrate shareholder control by serving as an on-going and comprehensive "proxy" delegation.

Detailed Description Text - DETX (265):

5. Where a "selected" individual or organization has validly **delegated voting** authority over at least some of its shares in the enterprise, separate selection probabilities are calculated by appropriately allocating portfolio shares between the portfolio owner and each organization to which it has **delegated voting** authority.

Detailed Description Text - DETX (454):

DLG:date entered:as of date:**delegated authority (Invest, Vote): asset(s):amount:delegatee**-acronym:compensation(as % of Assets or Earnings)::

Detailed Description Text - DETX (455):

This transaction **delegates either investment or voting** authority over specified assets to the identified delegatee-organization.

US-PAT-NO: 6112188

DOCUMENT-IDENTIFIER: US 6112188 A

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Brief Summary Text - BSTX (89):

Different groups will have different roles in the proposed system. The government is responsible for formulating privatization policies and overseeing their implementation. This initially involves legislation or decrees which resolve property rights, establish a management incomes policy as appropriate, and **delegate authority** to an agency to oversee the privatization process. Subsequently, that agency must promulgate regulations to provide guidance to and constraints upon the process. For example, professional organizations which accept investment authority over part of a **portfolio** in return for a share in the profits or assets could have a limit on the rates they charge. The agency itself must in turn be overseen by the legislature, executive and/or courts, who are in turn responsible to the citizenry in whom the entitlement to SMUs was created.

Detailed Description Text - DETX (29):

PRIVATIZE!.TM. (a new system to achieve universal privatization) supports the market for enterprise shares in a variety of ways such as dividend payments, stock subscriptions and "going private." It also provides subsets of shareholder lists for shareholder votes based on polling techniques. An embedded marketplace for the delegation of authority to professional investment organizations at competitive rates is included in the PRIVATIZE!.TM. (a new system to achieve universal privatization) tool to facilitate efficient markets and price discovery. These features of the market tool are additional examples of capabilities which can be valuable in developing and developed economies alike. It is specifically contemplated that users of the PRIVATIZE!.TM. (a new system to achieve universal privatization) tool may or may not be charged fees based on the amount and nature of their usage of the system.

Detailed Description Text - DETX (53):

such as BANK, DELEGATE, DIVIDEND, GRADE, JOIN, LEAVE, OVERSIGHT, PERCENTAGE, REINVEST, TRANSFER, WHEN, for example to off-hours processing on a daily cycle; 3) aggregating the assets under delegated investment authority into a composite synthetic portfolio for each delegate-organization, able to be partially or completely segregated into individual portfolio-owner accounts either periodically or as needed; 4) relocating information storage to speed access by taking advantage of the smaller absolute quantities of data being processed over shorter intervals, for example relocating the Transaction Data Base XDB from high capacity tape to disk, and relocating files such as PRICES and ORDERS from disk to main memory, along with periodic archival of such files to higher-capacity media; 5) configuring a powerful real-time central computer or set of computers, and in addition optionally exploiting parallelism inherent in the task, such as transaction front-end preprocessing, asynchronous period-sampling as described below, or any element of first-approximation independence of separate asset prices--for example one processor could be the initial co-recipient of all transactions involving government debt, along with the one or more processors designated as the initial recipient of one or more other assets involved in the exchange; and 6) in addition, the amount of processing power required to achieve convergence of price estimates is reduced because the initial price estimates, which are set equal to the most recent prices, will normally be closer to final price estimates over shorter intervals. The above-mentioned modules are described in detail below.

Detailed Description Text - DETX (174):

The comprehensive, sorted Transaction Data Base (XDB) is the basic file with PRIVATIZE!.TM. (a new system to achieve universal privatization) processes (in five passes) in order to: 1. determine delegations of investment authority; 2. establish asset prices; 3. execute orders as appropriate; 4. update portfolio valuations; and 5. generate the Disposition File for transmittal to custodial financial institutions.

Detailed Description Text - DETX (265):

5. Where a "selected" individual or organization has validly **delegated voting authority** over at least some of its shares in the enterprise, separate selection probabilities are calculated by appropriately allocating **portfolio** shares between the **portfolio** owner and each organization to which it has **delegated voting authority**.

Detailed Description Text - DETX (371):

1) Citizen Data Base (CDB), comprising transaction records for individual citizens. This can range from simply the entry of an ID record (which could be coordinated with **voter** registration or adapted from other governmental data bases, and would correspond to an initial census), to a comprehensive set of transactions to buy or sell different assets or authorize **delegation of investment authority**.

Detailed Description Text - DETX (454):

DLG:date entered:as of date:**delegated authority** (Invest, **Vote**):  
asset(s):amount:delegatee-acronym:compensation(as % of Assets or Earnings):

Detailed Description Text - DETX (455):

This transaction **delegates either investment or voting authority over specified assets to the identified delegatee**-organization.

Detailed Description Text - DETX (490):

(Offer to **delegate investment authority over 20% of the portfolio SMUs to delegatee** INVI in return for 10% of earnings. However, if the offer is not consummated, exchange those SMUs for a demand loan to LEVR at prevailing prices.)

Detailed Description Text - DETX (505):

Filter is a transaction entered only by a delegatee organization (or the government itself) so that subsequent transactions only apply to selected **portfolios** or assets. Account type is a single letter (C,F,M,N,E,D or G) as follows: Citizen, Foreign investor, financial institution (Money), charitable institution (Need), Enterprise, Delegatee or Government. Delegatee transactions not preceded by a FILTER command apply to all assets under its discretion, both its own proprietary assets and those for which investment **authority has been delegated** to it. In practice, a delegatee-organization should initiate its transaction block with a pair of FILTER statements keyed to its own acronym, bracketing the transactions applicable to its proprietary account.

US-PAT-NO: 6064971

DOCUMENT-IDENTIFIER: US 6064971 A

TITLE: Adaptive knowledge base

----- KWIC -----

Detailed Description Text - DETX (29):

PRIVATIZE!.TM. (a new system to achieve universal privatization) supports the market for enterprise shares in a variety of ways such as dividend payments, stock subscriptions and "going private." It also provides subsets of shareholder lists for shareholder votes based on polling techniques. An embedded marketplace for the delegation of authority to professional investment organizations at competitive rates is included in the PRIVATIZE!.TM. (a new system to achieve universal privatization) tool to facilitate efficient markets and price discovery. These features of the market tool are additional examples of capabilities which can be valuable in developing and developed economies alike. It is specifically contemplated that users of the PRIVATIZE!.TM. (a new system to achieve universal privatization) tool may or may not be charged fees based on the amount and nature of their usage of the system.

Detailed Description Text - DETX (53):

The central processing is then expedited for real-time responsiveness by: 1) sequestering modules such as AUCTION and EVOTE which have no inherent need to participate in a real-time market, even though they too can be more useful being implemented as part of a responsive electronic network; 2) deferring, as appropriate, relatively time-insensitive transactions such as BANK, DELEGATE, DIVIDEND, GRADE, JOIN, LEAVE, OVERSIGHT, PERCENTAGE, REINVEST, TRANSFER, WHEN, for example to off-hours processing on a daily cycle; 3) aggregating the assets under delegated investment authority into a composite synthetic portfolio for each delegatee-organization, able to be partially or completely segregated into individual portfolio-owner accounts either periodically or as needed; 4) relocating information storage to speed access by taking advantage of the smaller absolute quantities of data being processed over shorter intervals, for example relocating the Transaction Data Base XDB from high capacity tape to disk, and relocating files such as PRICES and ORDERS from disk to main memory, along with periodic archival of such files to higher-capacity media; 5) configuring a powerful real-time central computer or set of computers, and in addition optionally exploiting parallelism inherent in the task, such as transaction front-end preprocessing, asynchronous period-sampling as described below, or any element of first-approximation independence of separate asset

prices--for example one processor could be the initial co-recipient of all transactions involving government debt, along with the one or more processors designated as the initial recipient of one or more other assets involved in the exchange; and 6) in addition, the amount of processing power required to achieve convergence of price estimates is reduced because the initial price estimates, which are set equal to the most recent prices, will normally be closer to final price estimates over shorter intervals. The above-mentioned modules are described in detail below.

#### Detailed Description Paragraph Table - DETL (1):

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                         |
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| 16 00:46:21 1992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Privatization Planner (tm) Fri Oct      |
| (tm) You are wjh, looking at the default version, with default values----                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Privatization Planner                   |
| This software package is designed to support the systematic formulation of privatization policy. An initial data base of information will provide a basic tutorial on the issues and options in privatizing large state enterprises. Each "generation" a primary version and selected alternates will be distributed. Users can then evaluate and comment on the various screens and pages, and submit proposals for added, replaced or deleted screens and pages. Based on the aggregated evaluations, inferior alternatives will be pruned before the next generation. Authors of retained information can be given the opportunity to edit their material based on the evaluations and comments received. Enter command Re- De- Val- Page Add place lete ues Eval Screen User Help Quit 0-2 1-2 1-2 1-2 mode [id]                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                         |
| 00:47:12 1992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Privatization Planner (tm) Fri Oct 16   |
| Privatization Planner (tm) You are wjh, looking at the default version, with default values---- S Next Higher Screen (S0 for Root) 1 Introduction 2 Methods of Share Distribution 3 Timing Considerations 4 Privatize! (tm) Customization 5 Administrative Information Enter command Re- De- Screen Add place lete Title Eval Page User Help Quit 0-5 1-5 1-5 1-5 mode [id]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         |
| Fri Oct 16 00:52:00 1992                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Privatization Planner (tm) Transactions |
| You are wjh, looking at the default version, with default values---- S Next Higher Screen (S0 for Root) S1 ACQUIRE (attempt to obtain an asset in exchange for another) S2 BANK (financial institution to process debt payments of an enterprise) S3 CANCEL (cancel previous, unexecuted transactions) S4 <b><u>DELEGATE</u></b> ( <b><u>delegate investment or voting authority</u></b> over specified assets) S5 DIVIDEND (total dividends paid by an enterprise to shares on the system) S6 ELSE (alternative ACQUIRE transaction if first price contingencies not met) S7 FILTER (delegatee orders to apply to selected <b><u>portfolios</u></b> or assets) S8 GRADE (evaluation of financial institution) S9 IDENT (identification of <b><u>portfolio</u></b> owner) S10 JOIN (enterprise employee stock compensation and date of hire) S11 LEAVE (date enterprise employee ceases employment) S12 OVERSIGHT (dates of privatization and demonopolization; confiscation %) S13 PERCENTAGE (minimum compensation acceptable to delegatee organization) S14 REINVEST (specifies how <b><u>portfolio</u></b> earnings are to be invested) S15 SECURITY (apply transactions to "social security" portion of <b><u>portfolio</u></b> ) S16 TRANSFER (transfer specified |                                         |

assets to particular financial institution) Enter command Re- De- Screen  
Add place let Title Eval Page User Help Quit 0-16 1-16 1-16 1-16 mode [id]

Privatization Planner (tm) Fri Oct 16  
00:52:25 1992 Assets You are wjh,

looking at the default version, with default values---- S Next Higher Screen  
(S0 for Root) S1 ALL (composite of all assets in **portfolio**) S2 DXXXX (debt of  
specific borrower, as an asset in lender's **portfolio**) S3 DIXXXX (debt indexed  
for inflation) S4 EXXXX (stock in specific enterprise) S5 FCXX (foreign  
currency) S6 PAYOUT (generalized annuity) S7 SMU (Stock Market Unit, basket  
of shares privatized by 199x) S8 SMU2 (2d tranche of SMUS, basket of shares  
privatized between 199x and 200y) S9 VOUCHER (privatization voucher) S10  
Virtual Asset - DR (donation "right" transferred to donor for gift) S11  
Virtual Asset - LSER (large state enterprise rights exchanged for SMUs) S12  
Virtual Asset - SSER (small state enterprise rights) S13 Virtual Asset - TR  
(testamentary rights) S14 Virtual Asset - VAL (value received external to the  
software system) Enter command Re- De- Screen Add place let Title Eval  
Page User Help Quit 0-14 1-14 1-14 1-14 mode [id]

Privatization Planner (tm) Fri Oct 16  
00:50:39 1992 Files You are wjh,

looking at the default version, with default values---- S Next Higher Screen  
(S0 for Root) S1 Disposition File (DF) S2 Disposition File - Excerpts  
(DFXXXX) S3 Delegation Offer File (DOFF) S4 Delegatee Order File (DORF) S5  
Enterprise File (EPRISE) S6 Order File (ORDERS) S7 Asset Price File (PRICES)  
S8 Transaction Data Base (XDB) Enter command Re- De- Screen Add place let  
Title Eval Page User Help Quit 0-8 1-8 1-8 1-8 mode [id]

Privatization Planner (tm) Fri Oct 16  
00:51:05 1992 Modules You are wjh,

looking at the default version, with default values---- S Next Higher Screen  
(S0 for Root) S1 ACTUARY (calculates periodic annuity payments) S2 AUCTION  
(supports bidding with SMUS at small enterprise auctions) S3 DELCOMP  
(calculates threshold delegatee compensation) S4 DISPOSE (prepares  
transmittals to custodial financial institutions) S5 DORFGEN (generates  
Delegatee Order File - DORF) S6 EGEN (generates Enterprise File - EPRISE) S7  
EVOTE (supports polled shareholder **voting**) S8 PASS1 (transaction processing:  
first pass) S9 PASS2 (transaction processing: second pass) S10 PASS3  
(transaction processing: third pass) S11 PASS4 (transaction processing: fourth  
pass)



US-PAT-NO: 6338047

DOCUMENT-IDENTIFIER: US 6338047 B1

\*\*See image for Certificate of Correction\*\*

TITLE: Method and system for investing in a group of  
investments that are selected based on the aggregated,  
individual preference of plural investors

----- KWIC -----

Brief Summary Text - BSTX (28):

In the system of the present invention, investments are included based on the individual action and selection of each member acting on his or her own, with no collective action, where the aggregation of these individual actions reflects the overall investment in the portfolio. Moreover, the participants in the portfolio are self-selected or are participants that satisfy certain criteria, but they are not required to be admitted by collective action--anyone can join or exit at anytime. In contrast to the present invention, investors in an investment club select investments for the club through collective action, such as voting, or by delegation to one or more individuals of investment decision-making. Although the present invention could also be utilized in the context of a voting mechanism, its preferred embodiment does not use collective voting action, but actual aggregated, individual investor action, to determine the investments to be held. The alternative embodiment of the present invention in the context of a voting mechanism differs from an investment club using the Internet or other means to create an electronic mechanism.

US-PAT-NO: 6601044

DOCUMENT-IDENTIFIER: US 6601044 B1

TITLE: Method and apparatus for enabling individual or smaller investors or others to create and manage a portfolio of securities or other assets or liabilities on a cost effective basis

----- KWIC -----

Detailed Description Text - DETX (3):

As used herein, smaller investors includes generally any investor investing a smaller amount, regardless of whether an investor is an institution or an individual, and regardless of whether the investor is acting on its own behalf or on behalf of another. It would also include an investor investing through a financial planner, for example, who actually provides the inputs for and access to the system on behalf of the investor. The present invention consists of a computer-based system that provides smaller investors, a convenient and simple mechanism for investing small amounts including on a periodic basis, and a personal computer based or accessible program for managing a portfolio of securities, including the ability to make adjustments to the portfolio by selling or purchasing securities to modify the portfolio, for monitoring tax effects, for passing through voting rights of the securities and for delegating such rights to third parties at the discretion of the investor, for limiting parameters of portfolios if desired by the investor or another with authority over the account, and for analyzing investments held by the investor on an integrated, portfolio basis.

Detailed Description Text - DETX (9):

The computer-based system of the present invention permits, without incurring any additional costs, investors to purchase or sell small--and even fractional--units of shares. This is because, according to one embodiment of the computer-based system of the present invention, the system aggregates orders provided by its investors, executes the aggregated transactions and then allocates the acquired (or cash for sold) shares back to the accounts of the investors. (Since transactions outside of the system must still be made in full share amounts, it is possible that a fractional share amount could remain after the allocations. For example,  $7\frac{1}{2}$  shares of a stock in total could be allocated to 15 different accounts--with  $\frac{1}{2}$  share allocated to each. To effect this transaction, if the shares are acquired from outside the system, the broker operating the system would acquire 8 shares. The remaining  $\frac{1}{2}$  share would be owned by the broker or a third party worker with the broker

operating the system and held for allocation as needed in subsequent rounds of trading.) Consequently, an investor could have \$150 per week invested in 50 stocks, receiving an allocation to his account of fractional shares. Each subsequent week, the investor would have added to his account additional fractional interests in each of these stocks. Over the course of a year with, for example, about \$7,800 invested, the investor would have full and fractional shares in his account (if the average stock price were \$30, the investor would have on average a little over 5 shares--5.2 shares to be precise--in each of 50 stocks). The system of the present invention permits that full investment each week (or any desired period) in a diversified portfolio, the transactions in small share interests, and the transactions in fractional interests (none of which is possible on a cost-effective basis with ordinary brokerage). According to another embodiment of the computer-based system of the present invention, the system could be maintained by a broker so that the orders of the investors are executed by the broker or a third party as principal, with the broker maintaining a position in the securities, and thereby, in essence, aggregating the orders of the investors as contra-side transactions of the broker. Periodically, the broker could then execute an off-setting trade in the marketplace if the broker did not wish to carry the position.

3. Enables an investor to select individual securities reflecting preferences to be included within a diversified portfolio, and provides the information and tools necessary to create this type of portfolio for a low cost. The tools can also include "pre-packaged" or "celebrity" or other selected portfolios that can be further modified by the investor, or portfolios reflecting the portfolios or portfolio characteristics of specified affinity groups or other selected investors.

4. Enables reduced transactions costs by accepting customer orders entered at any time and aggregating them for trading. The computer-based system of the present invention holds the orders (except for those for which immediate execution is desired by the customer) until particular times, such as for example, at least three times per day (the "open" for any orders received since the last close of business, "mid-day" for all orders received during the morning, and the "close" for all orders received during the afternoon). The number of times orders could be traded is in general not limited, and depends to some extent on the number of investors, and the degree of risk or principal positioning that the broker wishes to accept. The computer-based system of the present invention takes all the orders that have been entered with it and, at the specified time, aggregates those orders for the purpose of reducing the number of transactions that would have to be executed, thereby reducing transaction costs and providing benefits to investors.

5. Enables superior trade execution of orders through netting. Furthermore, the computer-based system of the present invention includes the capability of netting orders against each other. The remaining orders that cannot be matched are executed internally (to the extent the system is making a market in the securities being traded) or forwarded for execution to a third party execution system (such as an exchange or a market maker).

6. Monitors portfolio based tax effects. In contrast to the prior art, the underlying concept of the computer-based system of the present invention relates to the creation of a portfolio. In that context, the monitoring of the portfolio for tax effects is an adjunct to the

transaction history and portfolio monitoring is part of the system.

Consequently, the computer-based system of the present invention can track the basis and acquisition date in each of the securities in the portfolio and use that basis to determine the tax consequences for the individual securities and the portfolio as a whole at any point in time. 7. Assists in the exercise of shareholder rights. Because the computer-based system of the present invention is designed to assist with regard to portfolios, including the exercise of shareholder rights regarding the portfolio securities, the computer-based system of the present invention offers assistance to investors in the form of aggregating not only their order execution, but also their voting or other rights. Consequently, an investor can obtain information in connection with his portfolio as to how securities could be voted by a service that analyzes the securities in the portfolio. The investor is permitted to direct that the **voting be delegated** to such service (or other services if multiple services are made available). 8. Permits the establishment of portfolio parameters. Because the computer-based system of the present invention is designed to assist in the creation of portfolios comprised of individual securities as opposed to the acquisition of individual securities as such, the portfolios can have limits imposed on them to facilitate "informed" or "reasonable" investing as determined by a plan sponsor or other party. Such parameters can be such that the portfolio must be diversified and not too risky, for example (in other words, it must have a set minimum number of stocks, such as 30, satisfying certain criteria, with no one stock accounting for more than 5% of the portfolio's value, and the overall risk in the portfolio not being in excess of a specified amount, such as 110%, of the S&P 500 risk level).

#### Detailed Description Text - DETX (113):

Once the general asset allocation determinations and risk-return preferences are made, investors are asked, through simple screens, about any preferences they have regarding stocks, such as where securities are listed, capitalization, and business sector; various financial factors such as price/earnings ratio and growth trends, and corporate governance factors such as whether the company sells specified products, or enjoys good labor relations, etc. (Determinations regarding subjective criteria, such as whether a company has "good" or "bad" governance factors, would generally come from third party sources.) An investor could then specify specific stocks-that must, or must not, be included in the portfolio. Consequently, the invention also acts as an ordinary broker--with a very low cost that would be expected to be materially less than even deep discount brokers--when immediate execution is not required or if the system operator is willing to pre-aggregate certain trades. If an investor seeks immediate execution for a selected trade, the invention will provide it, in the same manner as would any other electronic discount brokerage, for a fee that would be competitive with or better than that charged by the reputable discount brokers. After preferences are entered, the invention will create a diversified portfolio that expertly matches, to the extent possible, those preferences and the asset allocation determination--all automatically. If the portfolio is acceptable, the investor will enter the

dollar amount to be invested and the securities will be purchased for the investor at the invention's next "transaction window". For the invention to work, costs must be kept low so that investors can purchase and modify whole portfolios of securities on a frequent basis. To accomplish this, under one embodiment of the invention, the invention aggregates the orders entered by the investors utilizing the invention. The orders are aggregated not for the purpose of attempting to match one investor's order against another investor's order, but to reduce the number of actual transactions required to be executed by the system. The number of aggregations will depend on the number of investors of the system, their usage and other factors, but it is currently contemplated that orders would be aggregated into those received when the market is closed, those received in the morning, and those received in the afternoon, with transactions effected at the market open, mid-day and at the market close. If demand warrants, and other factors make it permissible, transactions could also be effected at other times--such as in the evening or more frequently during the day, if there is a market from which prices can be derived or if there is a market maker willing to make a market at that time and if it appears that effecting a transaction at such time would be consistent with the interests of investors. Similarly, the system operator (a bank or a broker, for example), could "pre-aggregate" some orders by executing against itself as principal and then hold the orders until a transaction window or until a certain amount was reached, etc. in order to execute the pre-aggregated orders. For example, the operator could take ten orders from ten customers and pre-aggregate all of them by executing against itself as those orders are received, and then take the bulk order position that it now owns and execute that as another order. This strategy means that the operator has to take upon itself market risk, and also has certain other disadvantages including potentially having to treat each trade as a reportable order for reporting purposes and other requirements, but it may be viable for certain small orders. Shares can be bought in very, small odd lots (one or two shares), and even in fractions--purchases not possible on a cost-effective basis with ordinary brokerage. All investor actions can be automated, with specified amounts being added each week or month from direct deposits and with selected stocks sold or bought depending on whether they satisfy certain criteria. In subsequent sessions, the investor can modify his portfolio any way he wishes, including to reflect new preferences, add to it with additional dollars invested, or sell some or all of the securities in the portfolio. The investor can also have the portfolio analyzed in connection with other investments the investor may have, such as funds or other investments held in other accounts, to review and modify a whole integrated portfolio. The invention will track the tax "basis" and acquisition date in stock purchases, and which stocks have gains and which have losses: so an investor can choose to sell stocks to generate capital gains or losses (long or short term) and thereby manage tax effects. Moreover, because the investor actually owns the individual securities in the portfolio, instead of just an interest in a fund, the investor has the right to vote the underlying stocks (or delegate the voting in accordance with various instructions), and sell individual stocks when he wishes. The computer-based system of the present invention, therefore, provides complete "hands on"

portfolio management for the investor who wishes it--those who employ discount brokerage, and those who select mutual funds on their own and simple, automatic and expert management for an investor who wishes to be completely "taken care of".

US-PAT-NO: 6601044

DOCUMENT-IDENTIFIER: US 6601044 B1

TITLE: Method and apparatus for enabling individual or smaller investors or others to create and manage a portfolio of securities or other assets or liabilities on a cost effective basis

----- KWIC -----

Detailed Description Text - DETX (9):

The computer-based system of the present invention permits, without incurring any additional costs, investors to purchase or sell small--and even fractional--units of shares. This is because, according to one embodiment of the computer-based system of the present invention, the system aggregates orders provided by its investors, executes the aggregated transactions and then allocates the acquired (or cash for sold) shares back to the accounts of the investors. (Since transactions outside of the system must still be made in full share amounts, it is possible that a fractional share amount could remain after the allocations. For example,  $7\frac{1}{2}$  shares of a stock in total could be allocated to 15 different accounts--with  $\frac{1}{2}$  share allocated to each. To effect this transaction, if the shares are acquired from outside the system, the broker operating the system would acquire 8 shares. The remaining  $\frac{1}{2}$  share would be owned by the broker or a third party worker with the broker operating the system and held for allocation as needed in subsequent rounds of trading.) Consequently, an investor could have \$150 per week invested in 50 stocks, receiving an allocation to his account of fractional shares. Each subsequent week, the investor would have added to his account additional fractional interests in each of these stocks. Over the course of a year with, for example, about \$7,800 invested, the investor would have full and fractional shares in his account (if the average stock price were \$30, the investor would have on average a little over 5 shares--5.2 shares to be precise--in each of 50 stocks). The system of the present invention permits that full investment each week (or any desired period) in a diversified portfolio, the transactions in small share interests, and the transactions in fractional interests (none of which is possible on a cost-effective basis with ordinary brokerage). According to another embodiment of the computer-based system of the present invention, the system could be maintained by a broker so that the orders of the investors are executed by the broker or a third party as principal, with the broker maintaining a position in the securities, and thereby, in essence, aggregating the orders of the investors as contra-side transactions of the broker. Periodically, the broker could then execute an off-setting trade in the marketplace if the broker did not wish to carry the position. 3. Enables

an investor to select individual securities reflecting preferences to be included within a diversified portfolio, and provides the information and tools necessary to create this type of portfolio for a low cost. The tools can also include "pre-packaged" or "celebrity" or other selected portfolios that can be further modified by the investor, or portfolios reflecting the portfolios or portfolio characteristics of specified **affinity** groups or other selected investors. 4. Enables reduced transactions costs by accepting customer orders entered at any time and aggregating them for trading. The computer-based system of the present invention holds the orders (except for those for which immediate execution is desired by the customer) until particular times, such as for example, at least three times per day (the "open" for any orders received since the last close of business, "mid-day" for all orders received during the morning, and the "close" for all orders received during the afternoon). The number of times orders could be traded is in general not limited, and depends to some extent on the number of investors, and the degree of risk or principal positioning that the broker wishes to accept. The computer-based system of the present invention takes all the orders that have been entered with it and, at the specified time, aggregates those orders for the purpose of reducing the number of transactions that would have to be executed, thereby reducing transaction costs and providing benefits to investors. 5. Enables superior trade execution of orders through netting. Furthermore, the computer-based system of the present invention includes the capability of netting orders against each other. The remaining orders that cannot be matched are executed internally (to the extent the system is making a market in the securities being traded) or forwarded for execution to a third party execution system (such as an exchange or a market maker). 6. Monitors portfolio based tax effects. In contrast to the prior art, the underlying concept of the computer-based system of the present invention relates to the creation of a portfolio. In that context, the monitoring of the portfolio for tax effects is an adjunct to the transaction history and portfolio monitoring is part of the system. Consequently, the computer-based system of the present invention can track the basis and acquisition date in each of the securities in the portfolio and use that basis to determine the tax consequences for the individual securities and the portfolio as a whole at any point in time. 7. Assists in the exercise of shareholder rights. Because the computer-based system of the present invention is designed to assist with regard to portfolios, including the exercise of shareholder rights regarding the portfolio securities, the computer-based system of the present invention offers assistance to investors in the form of aggregating not only their order execution, but also their **voting** or other rights. Consequently, an investor can obtain information in connection with his portfolio as to how securities could be voted by a service that analyzes the securities in the portfolio. The investor is permitted to direct that the **voting** be delegated to such service (or other services if multiple services are made available). 8. Permits the establishment of portfolio parameters. Because the computer-based system of the present invention is designed to assist in the creation of portfolios comprised of individual securities as opposed to the acquisition of individual securities as such, the portfolios can have limits imposed on them to facilitate "informed" or "reasonable" investing



as determined by a plan sponsor or other party. Such parameters can be such that the portfolio must be diversified and not too risky, for example (in other words, it must have a set minimum number of stocks, such as 30, satisfying certain criteria, with no one stock accounting for more than 5% of the portfolio's value, and the overall risk in the portfolio not being in excess of a specified amount, such as 110%, of the S&P 500 risk level).

US-PAT-NO: 6064971

DOCUMENT-IDENTIFIER: US 6064971 A

TITLE: Adaptive knowledge base

----- KWIC -----

Detailed Description Paragraph Table - DETL (1):

Privatization Planner (tm) Fri Oct  
16 00:46:21 1992 Privatization Planner

(tm) You are wjh, looking at the default version, with default values----  
This software package is designed to support the systematic formulation of  
privatization policy. An initial data base of information will provide a basic  
tutorial on the issues and options in privatizing large state enterprises.  
Each "generation" a primary version and selected alternates will be  
distributed. Users can then evaluate and comment on the various screens and  
pages, and submit proposals for added, replaced or deleted screens and pages.  
Based on the aggregated evaluations, inferior alternatives will be pruned  
before the next generation. Authors of retained information can be given the  
opportunity to edit their material based on the evaluations and comments  
received. Enter command Re- De- Val- Page Add place lete ues Eval Screen  
User Help Quit 0-2 1-2 1-2 1-2 mode [id]

Privatization Planner (tm) Fri Oct 16

00:47:12 1992 Privatization Planner (tm) You are wjh, looking at the default  
version, with default values---- S Next Higher Screen (S0 for Root) 1  
Introduction 2 Methods of Share Distribution 3 Timing Considerations 4  
Privatize! (tm) Customization 5 Administrative Information Enter command Re-  
De- Screen Add place lete Title Eval Page User Help Quit 0-5 1-5 1-5 1-5  
mode [id]

Privatization Planner (tm)  
Fri Oct 16 00:52:00 1992 Transactions

You are wjh, looking at the default version, with default values---- S Next  
Higher Screen (S0 for Root) S1 ACQUIRE (attempt to obtain an asset in exchange  
for another) S2 BANK (financial institution to process debt payments of an  
enterprise) S3 CANCEL (cancel previous, unexecuted transactions) S4 **DELEGATE**  
**(delegate investment or voting** authority over specified assets) S5 DIVIDEND  
(total dividends paid by an enterprise to shares on the system) S6 ELSE  
(alternative ACQUIRE transaction if first price contingencies not met) S7  
FILTER (delegatee orders to apply to selected portfolios or assets) S8 GRADE  
(evaluation of financial institution) S9 IDENT (identification of portfolio  
owner) S10 JOIN (enterprise employee stock compensation and date of hire) S11  
LEAVE (date enterprise employee ceases employment) S12 OVERSIGHT (dates of  
privatization and demonopolization; confiscation %) S13 PERCENTAGE (minimum  
compensation acceptable to delegatee organization) S14 REINVEST (specifies

how portfolio earnings are to be invested) S15 SECURITY (apply transactions to "social security" portion of portfolio) S16 TRANSFER (transfer specified assets to particular financial institution) Enter command Re- De- Screen Add place let Title Eval Page User Help Quit 0-16 1-16 1-16 1-16 mode [id]

Privatization Planner (tm) Fri Oct 16 00:52:25 1992 Assets You are wjh,

looking at the default version, with default values---- S Next Higher Screen (S0 for Root) S1 ALL (composite of all assets in portfolio) S2 DXXXX (debt of specific borrower, as an asset in lender's portfolio) S3 DIXXXX (debt indexed for inflation) S4 EXXXX (stock in specific enterprise) S5 FCXX (foreign currency) S6 PAYOUT (generalized annuity) S7 SMU (Stock Market Unit, basket of shares privatized by 199x) S8 SMU2 (2d tranche of SMUS, basket of shares privatized between 199x and 200y) S9 VOUCHER (privatization voucher) S10 Virtual Asset - DR (donation "right" transferred to donor for gift) S11 Virtual Asset - LSER (large state enterprise rights exchanged for SMUs) S12 Virtual Asset - SSER (small state enterprise rights) S13 Virtual Asset - TR (testamentary rights) S14 Virtual Asset - VAL (value received external to the software system) Enter command Re- De- Screen Add place let Title Eval Page User Help Quit 0-14 1-14 1-14 1-14 mode [id]

Privatization Planner (tm) Fri Oct 16 00:50:39 1992 Files You are wjh,

looking at the default version, with default values---- S Next Higher Screen (S0 for Root) S1 Disposition File (DF) S2 Disposition File - Excerpts (DFXXXX) S3 Delegation Offer File (DOFF) S4 Delegatee Order File (DORF) S5 Enterprise File (EPRISE) S6 Order File (ORDERS) S7 Asset Price File (PRICES) S8 Transaction Data Base (XDB) Enter command Re- De- Screen Add place let Title Eval Page User Help Quit 0-8 1-8 1-8 1-8 mode [id]

Privatization Planner (tm) Fri Oct 16 00:51:05 1992 Modules You are wjh,

looking at the default version, with default values---- S Next Higher Screen (S0 for Root) S1 ACTUARY (calculates periodic annuity payments) S2 AUCTION (supports bidding with SMUS at small enterprise auctions) S3 DELCOMP (calculates threshold delegatee compensation) S4 DISPOSE (prepares transmittals to custodial financial institutions) S5 DORFGEN (generates Delegatee Order File - DORF) S6 EGEN (generates Enterprise File - EPRISE) S7 EVOTE (supports polled shareholder voting) S8 PASS1 (transaction processing: first pass) S9 PASS2 (transaction processing: second pass) S10 PASS3 (transaction processing: third pass) S11 PASS4 (transaction processing: fourth pass)

| Set | Items   | Description                      |
|-----|---------|----------------------------------|
| S1  | 0       | VOT\$4                           |
| S2  | 0       | VOT4                             |
| S3  | 492872  | VOTE OR VOTING OR VOTED OR VOTES |
| S4  | 1249646 | SHAREHOLDER OR SHAREHOLDERS      |
| S5  | 113772  | S3 AND S4                        |
| S6  | 20258   | S5 AND PROXY                     |
| S7  | 7263    | S6 AND CORPORATION               |
| S8  | 312927  | VOTE OR VOTES                    |
| S9  | 5792    | S8 AND S7                        |
| S10 | 667     | S9 AND ELECTRONIC                |
| S11 | 2855604 | FORM OR FORMS OR SHEET OR SHEETS |
| S12 | 352     | S10 AND S11                      |
| S13 | 902442  | AUTOMATIC OR AUTOMATICALLY       |
| S14 | 59      | S12 AND S13                      |
| S15 | 1860000 | HARE OR SHARES                   |
| S16 | 55      | S14 AND S15                      |
| S17 | 1       | S16 AND AFFINITY                 |
| S18 | 0       | VOT?4 (5N) PROXY                 |
| S19 | 7373    | VOT? (5N) PROXY                  |
| S20 | 314     | S19 AND AUTOMATIC?               |
| S21 | 0       | S19 (5N) AUTOMATIC\$             |
| S22 | 314     | S19 AND AUTOMATIC?               |
| S23 | 99      | S22 (5N) SHAREHOLDER?            |
| S24 | 93      | S19 (5N) ELECTRONIC              |
| S25 | 0       | S22 (5N) ELECTONIC               |
| S26 | 98      | S22 AND ELECTRONIC               |
| S27 | 16      | S26 (5N) INTERNET                |

?t14/4/all

14/4/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

IM- \*Image available\*

AA- 1999-019805/199902|

XR- <XRPX> N99-016107|

TI- Electronic **voting** system - has electronic **voting** terminal which converts **vote** information embedded on printed **vote** paper into image information using digital water mark technique|

PA- NIPPON TELEGRAPH & TELEPHONE CORP (NITE )|

NC- 001|

NP- 001|

PN- JP 10289282 A 19981027 JP 9797273 A 19970415 199902 B|

AN- <LOCAL> JP 9797273 A 19970415|

AN- <PR> JP 9797273 A 19970415|

FD- JP 10289282 A G06F-019/00|

LA- JP 10289282(8)|

AB- <BASIC> JP 10289282 A

The system has an electronic **voting** terminal (11) which converts the **vote** information embedded on a printed **vote** paper into image information using digital water mark technique. The electronic **voting** terminal transmits **vote** information to a computer (21) via a communication circuit (3), for totalling.

An information detector (23) receives the count from the computer. The detected count is compared with the previously stored information using a comparator (24) for judging the election result.

ADVANTAGE - Detects multiple **voting** or mistake in **voting** easily by preventing **proxy voting**. Improves safety of **voting** system by preventing unauthorized extraction of embedded information on **vote** paper.

Dwg.1/8|

DE- <TITLE TERMS> ELECTRONIC; **VOTE**; SYSTEM; ELECTRONIC; **VOTE**; TERMINAL; CONVERT; **VOTE**; INFORMATION; EMBED; PRINT; **VOTE**; PAPER; IMAGE; INFORMATION; DIGITAL; WATER; MARK; TECHNIQUE|

DC- T01; T04; T05; W02|

IC- <MAIN> G06F-019/00|

IC- <ADDITIONAL> H04N-001/387|

MC- <EPI> T01-J10B2; T04-D07C; T05-D01A; T05-F; W02-J03A2B|

FS- EPI||

14/4/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2002 Thomson Derwent. All rts. reserv.

IM- \*Image available\*

AA- 1998-322109/199828|

DX- <RELATED> 1997-479759|

XR- <XRPX> N98-251940|

TI- Data processing system for **voting** of partial stock equity interest - includes broker's computer that generates **proxy** having indicia that includes **vote** due to equity components of each customer|

PA- AMERICUS STOCK PROCESS CORP (AMER-N)|

AU- <INVENTORS> BROMS P A; DEBE A J|

NC- 001|

NP- 001|

PN- US 5758097 A 19980526 US 90631324 A 19901220 199828 B

<AN> US 92945101 A 19920915

<AN> US 92979068 A 19921119

<AN> US 9395051 A 19930720

23/5,K/5 (Item 5 from file: 348)  
 DIALOG(R) File 348:EUROPEAN PATENTS  
 (c) 2002 European Patent Office. All rts. reserv.

01097063

**METHOD AND DEVICE FOR IDENTIFYING QUALIFIED VOTER**  
**VERFAHREN UND GERAT ZUM ERKENNEN VON PERSONEN ALS WAHLBERECHTIGTE**  
**PROCEDE ET DISPOSITIF SERVANT A IDENTIFIER LES PERSONNES AYANT QUALITE**  
**D'ELECTEURS**

PATENT ASSIGNEE:

THE CENTER FOR POLITICAL PUBLIC RELATIONS, INC., (1616261), 2-39 Akasaka  
 5-chome, Minatoku, Tokyo 107-0052, (JP), (Applicant designated States:  
 all)

INVENTOR:

MIYAGAWA, Takayoshi, 13-8-411, Akasaka 4-chome, Minatoku, Tokyo 107-0052,  
 (JP)

LEGAL REPRESENTATIVE:

Kramer, Reinhold, Dipl.-Ing. (7032), Blumbach, Kramer & Partner GbR  
 Patentanwalte Radeckestrasse 43, 81245 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 994434 A1 000419 (Basic)  
 WO 9952058 991014

APPLICATION (CC, No, Date): EP 99910850 990406; WO 99JP1817 990406

PRIORITY (CC, No, Date): JP 9893523 980406

DESIGNATED STATES: BE; DE; ES; FR; GB; IT; NL

INTERNATIONAL PATENT CLASS: G06F-019/00

ABSTRACT EP 994434 A1

The present invention improves an efficiency of a reception job at a  
 polling stations by introducing an automation of the job and prevents an  
 illegal voting.

Information of voters name and other related data including a portrait  
 photograph recorded on an entrance ticket to the polling station such as  
 ID card is read by a reading apparatus 25. The data read out is compared  
 with corresponding data in a voter's database formed in a memory  
 apparatus 24 by a computer 21 thereby the voter is identified  
 automatically. When the voter is identified, a voting card is issued from  
 a voting paper issuing apparatus 26. The conventional jobs for referring  
 to a voters list by receptionists and for handing a voting card to voters  
 are not necessary because of the automation. Moreover, as the voting card  
 is not issued for unauthentic voters, illegal voting can be prevented.

ABSTRACT WORD COUNT: 147

NOTE:

Figure number on first page: 1

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 20000419 A1 Published application with search report  
 Application: 991208 A1 International application. (Art. 158(1))  
 Examination: 20000419 A1 Date of request for examination: 19991130  
 Application: 991208 A1 International application entering European  
 phase

LANGUAGE (Publication,Procedural,Application): English; English; Japanese

FULLTEXT AVAILABILITY:

| Available Text                     | Language  | Update | Word Count |
|------------------------------------|-----------|--------|------------|
| CLAIMS A                           | (English) | 200016 | 2316       |
| SPEC A                             | (English) | 200016 | 8116       |
| Total word count - document A      |           |        | 10432      |
| Total word count - document B      |           |        | 0          |
| Total word count - documents A + B |           |        | 10432      |

...SPECIFICATION invention. According to the present invention, as  
 described above, the conventional voter's data is digitized to form a

database together with the portrait photograph of the voter so that the voting by another person may be avoided by the confirmation with man's eyes. The ID card is issued to the voter in a form like a driver's license and is used as an entrance ticket to the polling station. In the polling station, the voter's information recorded on the ID card is read out with portrait photograph, and the result of the reading is compared with the database to identify the voter automatically. With the result of the identification, a voting paper or voting card is issued. With the configuration, the reception job for voting is automated with high efficiency.

As is described in detail, the present invention provides a...

23/5,K/47 (Item 36 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00515306 \*\*Image available\*\*

METHOD AND APPARATUS FOR ENABLING INDIVIDUAL OR SMALLER INVESTORS OR OTHERS  
TO CREATE AND MANAGE A PORTOFOLIO OF SECURITIES OR OTHER ASSETS OR  
LIABILITIES ON A COST EFFECTIVE BASIS

PROCEDE ET APPAREIL PERMETTANT A DES PARTICULIERS, DES PETITS INVESTISSEURS  
OU AUTRES DE CREER ET GERER UN PORTEFEUILLE DE TITRES OU AUTRES SUR UNE  
BASE EFFICACE EN TERMES DE COUT

Patent Applicant/Assignee:

FOLIO TRADE LLC,

Inventor(s):

WALLMAN Steven M H,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9946658 A2 19990916

Application: WO 99US5010 19990305 (PCT/WO US9905010)

Priority Application: US 9838158 19980311; US 98139020 19980824

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU

LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA

UG UZ VN YU ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM

AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM

GA GN GW ML MR NE SN TD TG

Main International Patent Class: G06F

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 33412

#### English Abstract

Smaller investors can create and manage on a cost-effective basis a complex portfolio of securities using a mechanism that enables the investor to provide to the system the investor's **preferences** regarding his portfolio, to generate a portfolio, including fractional **shares**, that reflects the investor's **preferences**. The system then permits aggregation of the orders, and netting of orders, generated by multiple investors at various times during the day for execution. In addition, the structure of the computer-based system of the present invention allows its cost to be based on access to or usage of the system (such as a monthly fee) as opposed to by securities orders entered into the system as per common brokerage. The result is that the investor can create a portfolio of directly owned securities with attributes, such as diversification, similar to a mutual fund. As compared with the problems with existing systems, the computer-based system of the present invention provides complete control for the investor over what securities can be selected, and in what weights and amounts, as well as control over the tax effects of purchases or sales of the securities comprising the portfolio, preventing the investor from being presented with unwanted taxable effects due to discretionary sales transactions of fund managers. In addition, the computer-based system of the present invention provides all the information necessary to monitor and manage tax effects and capability to sell or buy the individual securities in his portfolio to obtain desired tax benefits, all shareholder rights with respect to each security in the portfolio to the investor and full ownership and control over all investment, **voting** and other decisions regarding such securities. The computer-based system of the present invention also allows for parameters to be set with respect to a portfolio to ensure that it stays within certain diversification or risk limits. Furthermore, the computer-based system of the present invention provides direct



control over the charges and expenses that will be incurred, and the possibility of making multiple intra-day investment decisions by the investor, if he wishes. Moreover, the computer-based system of the present invention provides control over all factors in the portfolio and modification of them as the investor sees fit.

#### French Abstract

De petits investisseurs peuvent creer et gerer un portefeuille de titres complexe sur une base efficace en termes de cout, a l'aide d'un mecanisme qui permet a d'indiquer au systeme les preferences de l'investisseur concernant son portefeuille, afin de creer un portefeuille comprenant des fractions d'actions qui refletent ses preferences. Ce systeme permet de cumuler et de compenser des ordres donnees par plusieurs investisseurs, a differents moments de la journee afin de les executer. En outre, la structure de ce systeme informatique permet d'etablir son cout sur l'accès ou l'utilisation du systeme (par exemple, des frais mensuels), par opposition au ordres de valeur introduits dans le systeme par courtage commun. Ceci permet a l'investisseur de creer un portefeuille de titres lui appartenant en propre, et possedant des attributs tels que la diversite ou des attributs semblables a un fond commun de placement. Si on compare avec les problemes des systemes existants, ce systeme permet a l'investisseur d'effectuer un controle complet sur les titres a selectionner, sur leur importance financiere et sur leur quantite ainsi que sur les effets fiscaux des achats et des ventes des titres composant le portefeuille, ce qui lui evite de faire face a des effets fiscaux indesirables, du fait de transactions de ventes discretionnaires d'administrateurs de fonds. En outre, ce systeme fournit toutes les informations necessaires au controle et a la gestion des effets fiscaux, ainsi que sur l'aptitude a vendre ou a acheter des titres individuels de son portefeuille de facon a obtenir les benefices fiscaux souhaitees, sur tous les droits des actionnaires par rapport a chaque titre du portefeuille et sur la pleine propriete et le controle de tous ses investissements, sur ses votes et autres decisions concernant ses titres. Ce systeme permet egalement de regler des parametres par rapport a un portefeuille afin de le maintenir dans les limites d'une certaine diversite et de risque. En outre, ce systeme fournit un controle direct sur les charges et les depenses a encourir, et permet de prendre des decisions d'investissement intra-journalieres multiples si l'investisseur le souhaite. En outre, ce systeme permet d'avoir en main tous les facteurs du portefeuille et de les modifier s'il le souhaite.

Fulltext Availability:  
Detailed Description

#### English Abstract

...using a mechanism that enables the investor to provide to the system the investor's **preferences** regarding his portfolio, to generate a portfolio, including fractional **shares**, that reflects the investor's **preferences**. The system then permits aggregation of the orders, and netting of orders, generated by multiple...  
...security in the portfolio to the investor and full ownership and control over all investment, **voting** and other decisions regarding such securities. The computer-based system of the present invention also...

#### Detailed Description

... assistance, to create, manage and modify a complex portfolio that reflects the investor's own **preferences**. It allows the investor to ensure that his portfolio is diversified and that it reflects...  
...control over matters like what stocks he owns, the taxes he pays, and how his **shares** will be **voted**. And it pen-nits him to purchase and sell whole portfolios and **specific** securities, and fractional interests in **shares** of securities - all for a low cost that is less than or

competitive to trades...

23/5,K/47 (Item 36 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2002 WIPO/Univentio. All rts. reserv.

00515306 \*\*Image available\*\*

METHOD AND APPARATUS FOR ENABLING INDIVIDUAL OR SMALLER INVESTORS OR OTHERS  
TO CREATE AND MANAGE A PORTOFOLIO OF SECURITIES OR OTHER ASSETS OR  
LIABILITIES ON A COST EFFECTIVE BASIS

PROCEDE ET APPAREIL PERMETTANT A DES PARTICULIERS, DES PETITS INVESTISSEURS  
OU AUTRES DE CREER ET GERER UN PORTEFEUILLE DE TITRES OU AUTRES SUR UNE  
BASE EFFICACE EN TERMES DE COUT

Patent Applicant/Assignee:

FOLIO TRADE LLC,

Inventor(s):

WALLMAN Steven M H,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9946658 A2 19990916

Application: WO 99US5010 19990305 (PCT/WO US9905010)

Priority Application: US 9838158 19980311; US 98139020 19980824

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES  
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LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA  
UG UZ VN YU ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM  
AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM  
GA GN GW ML MR NE SN TD TG

Main International Patent Class: G06F

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 33412

#### English Abstract

Smaller investors can create and manage on a cost-effective basis a complex portfolio of securities using a mechanism that enables the investor to provide to the system the investor's **preferences** regarding his portfolio, to generate a portfolio, including fractional **shares**, that reflects the investor's **preferences**. The system then permits aggregation of the orders, and netting of orders, generated by multiple investors at various times during the day for execution. In addition, the structure of the computer-based system of the present invention allows its cost to be based on access to or usage of the system (such as a monthly fee) as opposed to by securities orders entered into the system as per common brokerage. The result is that the investor can create a portfolio of directly owned securities with attributes, such as diversification, similar to a mutual fund. As compared with the problems with existing systems, the computer-based system of the present invention provides complete control for the investor over what securities can be selected, and in what weights and amounts, as well as control over the tax effects of purchases or sales of the securities comprising the portfolio, preventing the investor from being presented with unwanted taxable effects due to discretionary sales transactions of fund managers. In addition, the computer-based system of the present invention provides all the information necessary to monitor and manage tax effects and capability to sell or buy the individual securities in his portfolio to obtain desired tax benefits, all shareholder rights with respect to each security in the portfolio to the investor and full ownership and control over all investment, **voting** and other decisions regarding such securities. The computer-based system of the present invention also allows for parameters to be set with respect to a portfolio to ensure that it stays within certain diversification or risk limits. Furthermore, the computer-based system of the present invention provides direct

control over the charges and expenses that will be incurred, and the possibility of making multiple intra-day investment decisions by the investor, if he wishes. Moreover, the computer-based system of the present invention provides control over all factors in the portfolio and modification of them as the investor sees fit.

#### French Abstract

De petits investisseurs peuvent creer et gerer un portefeuille de titres complexe sur une base efficace en termes de cout, a l'aide d'un mecanisme qui permet a d'indiquer au systeme les preferences de l'investisseur concernant son portefeuille, afin de creer un portefeuille comprenant des fractions d'actions qui refletent ses preferences. Ce systeme permet de cumuler et de compenser des ordres donnees par plusieurs investisseurs, a differents moments de la journee afin de les executer. En outre, la structure de ce systeme informatique permet d'etablir son cout sur l'accès ou l'utilisation du systeme (par exemple, des frais mensuels), par opposition au ordres de valeur introduits dans le systeme par courtage commun. Ceci permet a l'investisseur de creer un portefeuille de titres lui appartenant en propre, et possedant des attributs tels que la diversite ou des attributs semblables a un fond commun de placement. Si on compare avec les problemes des systemes existants, ce systeme permet a l'investisseur d'effectuer un controle complet sur les titres a selectionner, sur leur importance financiere et sur leur quantite ainsi que sur les effets fiscaux des achats et des ventes des titres composant le portefeuille, ce qui lui evite de faire face a des effets fiscaux indesirables, du fait de transactions de ventes discretionnaires d'administrateurs de fonds. En outre, ce systeme fournit toutes les informations necessaires au controle et a la gestion des effets fiscaux, ainsi que sur l'aptitude a vendre ou a acheter des titres individuels de son portefeuille de facon a obtenir les benefices fiscaux souhaitees, sur tous les droits des actionnaires par rapport a chaque titre du portefeuille et sur la pleine propriete et le controle de tous ses investissements, sur ses votes et autres decisions concernant ses titres. Ce systeme permet egalement de regler des parametres par rapport a un portefeuille afin de le maintenir dans les limites d'une certaine diversite et de risque. En outre, ce systeme fournit un controle direct sur les charges et les depenses a encourir, et permet de prendre des decisions d'investissement intra-journalieres multiples si l'investisseur le souhaite. En outre, ce systeme permet d'avoir en main tous les facteurs du portefeuille et de les modifier s'il le souhaite.

#### Fulltext Availability: Detailed Description

#### English Abstract

...using a mechanism that enables the investor to provide to the system the investor's **preferences** regarding his portfolio, to generate a portfolio, including fractional **shares**, that reflects the investor's **preferences**. The system then permits aggregation of the orders, and netting of orders, generated by multiple...  
...security in the portfolio to the investor and full ownership and control over all investment, **voting** and other decisions regarding such securities. The computer-based system of the present invention also...

#### Detailed Description

... assistance, to create, manage and modify a complex portfolio that reflects the investor's own **preferences**. It allows the investor to ensure that his portfolio is diversified and that it reflects...  
...control over matters like what stocks he owns, the taxes he pays, and how his **shares** will be **voted**. And it pen-nits him to purchase and sell whole portfolios and **specific** securities, and fractional interests in **shares** of securities - all for a low cost that is less than or

competitive to trades...

WORD COUNT: 1078

... 8% Boston 5% Seattle 4% Denver 3% Atlanta 3% Raleigh 2% Phoenix 2%  
MERGER TRANSACTION **DETAILS** Combined company: Archstone converts to UPREIT  
structure; Charles E. Smith assets merged in Exchange ratio 1.975 Archstone  
**shares** for each Charles E. Smith **share** Imputed cap rate 7.5% for  
Charles E. Smith assets Assumptions - \$29.31 Archstone NAV per **share** -  
Market NOI growth rates Operational efficiencies \$7 - \$8 million annually  
2002 FFO \$2.45 - \$2.52 per **share** Financial reporting Focus on earnings  
per **share** ; adopt Charles E. Smith accounting policies for make-ready  
capitalization DEEP, EXPERIENCED MANAGEMENT TEAM Additions...

... lines of credit \$994 million - Drawn \$188 million - Available capacity  
\$806 million 2001 ratios (pro **forma**) - Interest coverage 3.2 x - Fixed  
charge coverage (1) 2.6 x - Total debt to...

... market capitalization \$5.7 billion \$3.6 billion \$9.3 billion (1) Based  
on closing **share** prices as of May 3, 2001 MERGER TRANSACTION - PROPOSED  
TIMELINE Board approval May 3, 2001 Public announcement May 4, 2001 File  
joint **proxy** statement with SEC May/June 2001 Mail joint **proxy** statement  
to shareholders July/August 2001 Shareholder **vote** / closing  
August/September 2001

Archstone Communities Trust and Charles E. Smith Residential Realty,  
Inc., urge...

26/3,K/38 (Item 38 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
(c) 2002 The Dialog Corp. All rts. reserv.

16412873 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
**De Beers Con/Cntnry - De Beers Offer Update**  
REGULATORY NEWS SERVICE  
April 30, 2001  
JOURNAL CODE: WRNS LANGUAGE: English RECORD TYPE: FULLTEXT  
WORD COUNT: 2867

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... section 14 below). 6. MEETING AND VOTING ARRANGEMENTS  
The Scheme Meeration, need not submit new **proxy** and **voting**  
**instruction forms**. Linked Unit holders who have already submitted  
**proxy** and **voting instruction forms** who do wish to change their  
**votes** in respect of the increased offer, should submit new **proxy** and  
**voting instruction forms** by no later than the relevant dates set out  
in section 13 below. New **proxy** and **voting instruction forms** will be  
posted to Linked Unit holders as set out in section 14 below. 7...

... the close of business on Friday, 11 May 2001 will be entitled to submit  
a **voting instruction form**. ADR holders who held ADRs on Friday, 10  
April 2001, and remain ADR holders on the new record date, who have already  
submitted their **voting instruction forms** instructing their ADR  
depository bank how to v agent, DF King & Co. Inc. at 77...

...269 5550 or toll-free (from within the US only) on (800) 549 6697. 8.  
**PREFERENCE SHARE SCHEME MEETINGS** There are no changes to the terms of  
the First **Preference Share** Scheme or the Second **Preference Share**  
Scheme. Neither of the **Preference Share** Schemes are conditional on the  
implementation of the Scheme and vice versa. The meetings in relation to  
each of the **Preference Share** Schemes will be held, as previously  
advised and set out in the First **Preference Share** Scheme Circular and  
Second **Preference Share** Scheme Circular, on 4 May 2001 TRANSACTION The  
increase in the offer to De Beers...

... credit facilities to be provided to DBI by Dresdner and UBS and the cumulative redeemable **preference shares** in DBI to be held by Anglo American and Debswana remain unchanged. The shareholdings in...

... Friday, 4 May Expected record date for Anglo American Bonus Issue Friday, 4 May First **Preference Share** Scheme Meeting to be held at Pink Depositary Receipt **Forms**, by 11.00 am Last day for receipt of Blue Scheme **Proxy Forms** for Thursday, 17 May the Scheme Meeting by 10.00 am (Scheme **Proxy Forms** may also be handed to the Chairman of the Scheme Meeting not later than 10 minutes before commencement of the Scheme Meeting) Last day to register in order to **vote** at the Scheme Thursday, 17 May Meeting, the general meeting of DBCM Shareholders and the...is expected to be Friday, 1 June 2001, will be for immediate settlement.

14. NEW **FORMS** A copy of this announcement, a new Surrender, Nomination and Election **Form** and new **proxy** and **voting instruction forms** in relation to each of the Scheme Meeting, general meoes not reach De Beers' activities...

...this announcement. (ii) A consideration of US\$45.94 is based on an Anglo American **Share** price of US\$65.05, which was the official close price of an Anglo American **Share** of #45.29 as quoted on the London Stock Exchange on 27 April 2001, being...

... Beers and enhances the relationship between the Botswana Government and the Oppenheimer family." nglo American **Share** of #37.22 and exchange rate of US\$1.4350 to #1.00 on 4...

26/3,K/39 (Item 39 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
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16269142 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Kvaerner PLC - Open Letter to Shareholders  
REGULATORY NEWS SERVICE  
April 20, 2001  
JOURNAL CODE: WRNS LANGUAGE: English RECORD TYPE: FULLTEXT  
WORD COUNT: 1162

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... work to the benefit of all shareholders. We would urge all shareholders to attend and **vote** at the AGM. You can also appoint the Chairman or the President & CEO of Kvaerner as your **proxy**. Aker RGI and Aker Maritime, both controlled by Kjell Inge Rokke, have presented plans that...

... business for about NOK 4 billion. This will be funded by a private placement of **preference shares** with Aker Maritime. In addition, Mr Rokke has proposed that Kvaerner should transfer its Shipbuilding...

... and loss of revenues, margins and jobs which would follow from a contraction in market **share** for the merged business. - The board believes that the proposed **form** of payment is unfavourable for Kvaerner shareholders, with the exception of those who also hold **shares** in Aker Maritime. It will have a diluting effect and restrict the Company's financial...

26/3,K/40 (Item 40 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
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said, and ChaseMellon has offered more information on its website, www.chase-mellon.com. For example, shareholders who want **instructions** on how to transfer the stock of a deceased family member can now find clearer ...put more resources into growing their plans because they see the possible returns in the **form** of investment dollars and increased sales due to product loyalty, he said.

Bundling Services  
Although...

...single European currency is in place next year, and the effects of the Year 2000 **computer** problem are known, Balsan said. Further consolidation and the rollout of new services will slow...

...down in a few months," he said.

First Chicago Looks Ahead

Through increased use of **Internet** and Intranet technology, transfer agent First Chicago Trust Co. aims to cut costs by offering regular and employee shareholders a variety of **online** options, said Joe Spadaford, First Chicago's president.

By making the shift from paper mailings and **proxy** votes to **Internet** and Intranet services, First Chicago eventually wants shareholders to be able to access their accounts, and make changes and transactions **online**, Spadaford said. It also wants to hold paperless annual meetings and distribute **proxy** materials over the **Internet**, said Michael Foley, senior VP at First Chicago.

"We will encourage **electronic** **proxy** voting in order to have a more timely response to **proxy** votes," Foley said.

First Chicago already has some pilot programs in place and hopes to move toward shareholder self-servicing over the **Internet** within a year, Spadaford said. This will include allowing shareholders to specify what services they want, such as their dividend reinvestment statements over the **Internet**, he said.

First Chicago's pending merger with Boston Equiserve will allow it to spread...that First Chicago's corporate clients want to increase ownership from the employee base to **form** the focal point of their growth strategy, Foley said. There are opportunities to attract overseas...

3/3,K/39 (Item 5 from file: 267)  
DIALOG(R)File 267:Finance & Banking Newsletters  
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00021539

Time to vote your shares? ring up

Matthew Greco

Mergers & Restructuring

March 10,1997 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: SECURITIES DATA PUBLISHING

LANGUAGE: ENGLISH

WORD COUNT: 903

RECORD TYPE: FULLTEXT

(c) SECURITIES DATA PUBLISHING All Rts. Reserv.

TEXT:

**Internet** **proxy** voting for this annual meeting season has been waylaid by controversy over **proxy** voting fees. But a dramatically expanded telephone voting option will be in place for the first time for many large companies and their shareholders, individuals included.

The telephone voting option, which initial testing shows will have great popularity, is one of three **electronic** voting venues that Automatic Data Processing's Investor Communication Services (ICS) has at various levels of development.

Indeed, in a surprising figure, almost half-48.5% to be exact-of all shares voted in 1996 were voted **electronically**, according to Robert



Niebanck, chief technology officer for ICS.

That number should expand significantly this **proxy** season with a much wider availability of telephone **voting**, Niebanck said.

**Internet voting** probably would have been available this **proxy** season but for controversy over the new proposed **proxy voting** fee structure. At deadline, ICS was still waiting on a much delayed ruling by the...

...and Exchange Commission on the proposed fee structure it receives for its virtual monopoly on **proxy** handling work.

Until those fees are approved, ICS has made a business decision to not roll out the **Internet** option, Mary Ann Butera, ICS VP of sales said. And, even if the SEC does approve the fees, it will be too late for this **proxy** season. However, if approved, **Internet proxy voting** might be available for the "mini" **proxy voting** season that comes in late October and November for those companies with June 30 fiscal year-ends, Butera said.

#### SEC Offers Encouragement

ICS's fee for **Internet voting** would come out of one of the more controversial parts of the proposed fee schedule...

...new \$20 "nominee" fee. Other than the fee structure, however, the SEC has reviewed the **Internet** pilot and is encouraging ICS to proceed with it.

Butera said some companies may be doing some **Internet voting** for their registered holders with the assistance of their transfer agents.

The foundation of ICS's **electronic voting** technologies remains ProxyEdge, which has been available since 1992, and which has gone through a...

...In 1996 it was used by some 180 institutions (which accounted for most of the **vote** submitted **electronically** last **proxy** season), including Institutional Shareholder Services, which recommends to money managers how to **vote** their **proxies** and which itself does the **voting** for another 50 institutions.

ProxyEdge simplifies life for companies, and improves response rates to **proxy** proposals, said Butera, adding that another 20 money managers will likely use ProxyEdge this year...

...return, Niebanck said, making it easier for institutions, which sometimes go through a fairly laborious **proxy voting** review process, to respond.

Telephone **voting** was put in place in 1994, but to date has been rolled out on only...

...to some institutions that didn't have ProxyEdge, there were still 5.3 billion shares **voted** this way, or 6% of the total **vote** returned to ICS.

Telephone **voting** was originally intended to be open to everyone, individual shareholders included, and it looks like...

...it, Niebanck said.

Shareholders will see a telephone number for the service printed on their **proxy forms**, Butera noted. It's already had one successful roll out for a company with a non-traditional fiscal year: The Walt Disney Company. Some 16% of Disney's registered holders **voted** by telephone, Butera said, which was right on line with projections. (The service was not available to Street name accounts, because the systems weren...

...in place).

#### Usage Should Triple this Year

ICS expects to see, on average, 15% of **voters** use the option when it is offered-tripling the use the technology saw last year...

for which the **proxy** process is but a pale, secondary sop.  
Instead, management holds the power in the modern...

...said.

Be a Conduit

A simple change in the tax law would give corporations the **choice** of being treated as a conduit or taxed as they are currently. Under a conduit scenario, corporate profits would only be taxed once, in the **form** of shareholder distributions, rather than twice-both at the corporate level and at the shareholder...

...to be taxed and how to use retained earnings would be settled by a shareholder **vote**, Morris suggested. "The issue would be the occasion for great debate in the business community..."

...dividend reinvestment plans, under which shareholder could reinvest their dividends through the creation of new **shares**. "Well-managed companies would have high reinvestment rates, and poorly managed companies would have low...retain nearly all of their earnings within the company, albeit after the creation of additional **shares**."

Furthermore, Morris said, "capital would be mobile; it would not be locked up in stagnant..."

26/3,K/12 (Item 10 from file: 267)  
DIALOG(R)File 267:Finance & Banking Newsletters  
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+ 00021539/9

Time to vote your shares? ring up

Matthew Greco

Mergers & Restructuring

March 10,1997 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: SECURITIES DATA PUBLISHING

LANGUAGE: ENGLISH

WORD COUNT: 903

RECORD TYPE: FULLTEXT

(c) SECURITIES DATA PUBLISHING All Rts. Reserv.

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...and Exchange Commission on the proposed fee structure it receives for its virtual monopoly on **proxy** handling work.

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Shareholders will see a telephone number for the service printed on their **proxy forms**, Butera noted. It's already had one successful roll out for a company with a non-traditional fiscal year: The Walt Disney Company. Some 16% of Disney's registered holders **voted** by telephone, Butera said, which was right on line with projections. (The service was not...

...limiting it to the eight or nine states that specifically endorse the use of telephone **voting**. The same rules don't apply to Street name **voting** because technically Street name holders are not mailed **proxies** but **proxy voting instruction forms**, which tell the broker how to **vote** the **proxy**, Butera said. And brokers aren't regulated by state law, but under the SEC, which has already approved telephone **voting**.

With telephone **voting**, holders can go back and change your **vote** as many times as you want-up to midnight of the night before the **vote**, although ICS doesn't want to promote that fact. The intent is not to encourage people to **vote** later, but rather to make it convenient, Neibanck quickly points out.

Telephone **voting** should be a big hit with corporations. As Neibanck points out, it could save them...

...for the cost of the 800 number call, which is roughly 18 cents.

Conceptually, Internet **voting** is not so different than telephone **voting**, however it can be taken a lot further, Neibanck said. For one thing, not only can holders **vote** electronically, they can receive the **proxy** materials (and annual report) electronically.

...

26/3,K/13 (Item 11 from file: 267)  
DIALOG(R)File 267:Finance & Banking Newsletters  
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00021368

**Greener Pastures Are Here: ADRs Explode: Many Issuers Don't Have Even Minimal IR Programs to Support Their Stock**  
Philip Scipio  
Investor Relations Business  
February 24,1997 DOCUMENT TYPE: NEWSLETTER  
PUBLISHER: SECURITIES DATA PUBLISHING  
LANGUAGE: ENGLISH WORD COUNT: 913 RECORD TYPE: FULLTEXT

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TEXT:

...to U.S. IROs? That is, are foreign issuers honing in on U.S. companies' **share** of the investment pie? Not really, according to Dirk Koerber VP of investor relations at...

...markets and foreign exchange listings.

Many large institutional investors do set aside investment dollars for **specific** industries, Koerber said, and ADRs might divert some of those dollars. But foreign investors chasing...According to Duggan, these dually traded receipts will soon overtake ADRs as the most popular **form** of receipt.

With the popularity of ADRs with U.S. investors comes more scrutiny. Previously...

...make corporate governance demands.

When an ADR is issued, the depository is responsible for distributing **proxy** material to all registered ADR holders of Level II or III programs. The depository is only obliged to **vote** if instructed to do so by the holder of the ADR. Other level ADR programs don't necessarily grant **voting** rights.

...

26/3,K/14 (Item 12 from file: 267)  
DIALOG(R)File 267:Finance & Banking Newsletters  
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00021345

**Ring that Bell: Phone Proxies Are Coming: Internet Proxy Voting Will Have to Wait a While Longer**  
Matthew Greco  
Investor Relations Business  
March 10,1997 DOCUMENT TYPE: NEWSLETTER  
PUBLISHER: SECURITIES DATA PUBLISHING  
LANGUAGE: ENGLISH WORD COUNT: 1171 RECORD TYPE: FULLTEXT

(c) SECURITIES DATA PUBLISHING All Rts. Reserv.

TEXT:

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The telephone **voting** option, which initial testing shows will have great popularity, is one of three electronic **voting** venues that Automatic Data Processing's Investor Communication Services has at various levels of development.

Indeed, in a surprising figure, almost half-48.5% to be exact-of all

shares voted in 1996 were voted electronically, according to Robert Niebanck, chief technology officer for ICS.

That number should expand significantly this proxy season with a much wider availability of telephone voting, Niebanck said.

Internet voting probably would have been available this proxy season but for controversy over the proposed proxy voting fee structure. At presstime, ICS was still waiting on a much delayed ruling by the...

...and Exchange Commission on the proposed fee structure it receives for its virtual monopoly on proxy handling work (See IRB, 12/23/96).

Until those fees are approved, ICS has made...

...ICS vp of sales. And, at any rate, it is now too late for this proxy season. However, if the fees are approved, Internet proxy voting might be available for the "mini" proxy voting season that comes in late October and November for those companies with June 30 fiscal year-ends, Butera said.

ICS's fee for Internet voting would come out of one of the more controversial parts of the proposed fee schedule...

...encouraging ICS to proceed with it.

Butera said some companies may be doing some Internet voting for their registered holders with the assistance of their transfer agents (See sidebar on Intel).

ProxyEdge Is Electronic Foundation

The foundation of ICS's electronic voting technologies remains ProxyEdge, which has been available since 1992, and which has gone through a...

...In 1996 it was used by some 180 institutions (which accounted for most of the vote submitted electronically last proxy season), including Institutional Shareholder Services, which recommends to money managers how to vote their proxies and which itself does the voting for another 50 institutions.

ProxyEdge simplifies life for companies, and improves response rates to proxy proposals, said Butera, adding that another 20 money managers will likely use ProxyEdge this year...

...return, Niebanck said, making it easier for institutions, which sometimes go through a fairly laborious proxy voting review process, to vote.

Telephone Voting Has Been on Hold

Telephone voting was put in place in 1994, but to date has been rolled out on only still 5.3 billion shares voted this way, or 6% of the total vote returned to ICS.

Telephone voting was originally intended to be open to everyone, individual shareholders included, and it looks like...

...it, Niebanck said.

Shareholders will see a telephone number for the service printed on their proxy forms, Butera noted. It's already had one successful roll out for a company with a non-traditional fiscal year: The Walt Disney Company. Some 16% of Disney's registered holders voted by telephone, Butera said, which was right in line with projections. (The service was not...

...limiting it to the eight or nine states which specifically endorse the use of telephone voting (See related story on First Union).

The same rules don't apply to Street name voting -since technically Street name holders are not mailed proxies but proxy voting instruction forms, which tell the broker how to vote the proxy, Butera said. And brokers don't come under state law, but under SEC regulation, which has already approved telephone voting.

Let Your Fingers Do the Voting

One option with the phone system is it allows shareholders to go back and change their **vote** as many times as they would like-up to midnight of the night before the **vote** , though ICS doesn't want to promote that fact.

The intent is not to encourage people to **vote** later, but rather to make it convenient, Neibanck quickly pointed out.

Telephone **voting** should be a big hit with corporations. As Neibanck noted, it could save them substantial...

...which is roughly 18 cents. They will no longer be charged for return postage.

Telephone **voting** will also be a future benefit to international shareholders, who usually don't get to **vote** , Neibanck said, adding that it will increase **proxy vote** response.

But perhaps even more attractive for international shareholders will be the Internet **proxy** option. The prototype is currently available for viewing at (<http://www.proxyvote.com>).

Conceptually, Internet **proxy voting** is not so different than telephone **voting** , however, it can be taken a lot further, Neibanck said. For one thing, not only can holders **vote** electronically, they can receive the **proxy** materials (and annual report) electronically.

Saving Those Pennies

Obviously, the potential here for significant corporate...

...around \$1.30 in postage and \$1.45 in material production and transportation costs per **proxy** through electronic distribution and **voting** , Niebanck said. These numbers do not include the savings if shareholders also were interested in...

...for the service. Indeed, surveys show some 40% of accounts want to be able to **vote** electronically, Niebanck said.

Of course, the mailing of **proxies** is not going to go away anytime soon. For while the SEC has been encouraging...

26/3,K/15 (Item 13 from file: 267)  
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00019620

Georgeson: 81% of IR Clients Expect , To Have Web Sites by 1997

Judy Glass

Investor Relations Business

April 29,1996 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: SECURITIES DATA PUBLISHING

LANGUAGE: ENGLISH

WORD COUNT: 1948

RECORD TYPE: FULLTEXT

(c) SECURITIES DATA PUBLISHING All Rts. Reserv.

TEXT:

It may not be scientific, but a recent survey by consulting and **proxy** firm Georgeson & Co. found that 81% of its clients have or expect to have corporate...

...the Web? Thirty-one percent said press releases; 29% said annual reports, 11% said executive **profiles** , 11% said financial statements, 11% said product information and 7% said employment listings.

As to...that allows Canadian companies listed on U.S. exchanges to make their reports on Canadian **forms** , not 10K's, and I assume it works in reverse."

Barrick, which is listed on...underwriters and help interpret the offering process," and an individual with extensive marketing or industry-specific experience, he said.

Reynolds noted that the NYSE, Nasdaq and the AMEX all require companies

corporate purposes.

The new participating **shares** are entitled to dividends equal to the greater of 6.5% per annum and ordinary **share** dividends on an as converted basis. Dividends will be paid in the **form** of additional participating **shares** for the first five years. The participating **shares** are convertible into ordinary **shares** at a conversion price of \$3.125 per ordinary **share** (equal to \$12.50 per ADS), subject to adjustment in certain circumstances to avoid dilution of the interests of participating shareholders. The new participating **shares** (218,000) have **voting** rights initially corresponding to approximately 23% of the total **voting** power of Danka's capital stock. The terms of the participating **shares** issued to Cypress and Prudential are set out in full in the articles of association ...

...which were adopted at the extraordinary general meeting of its shareholders on December 17, 1999. **Details** of the terms of the **shares** are also included in the circular sent to Danka's shareholders and the **proxy** sent to Danka's U.S. shareholders and American Depositary shareholders on November 24, 1999...

26/3,K/10 (Item 7 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
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06751711 Supplier Number: 56757773 (USE FORMAT 7 FOR FULLTEXT)  
Call-Net Enterprises Inc. Amends Resolutions For October 26 Shareholder Meeting.  
PR Newswire, p6994  
Oct 22, 1999  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 309

... Notice of the revised resolutions will be given through publication in certain newspapers.

All valid **proxies** received to date will be **voted** in accordance with the shareholder's original **instructions** save that a **vote** in favour of the original resolutions will be deemed to be a **vote** in favour of the revised resolutions and a **vote** against the original resolutions will be deemed to be a **vote** against the revised resolutions. Common shareholders who have submitted a **proxy form** authorizing any person to **vote** their **shares** may revoke such authority by contacting the Company's transfer agent, CIBC Mellon Trust Company...

26/3,K/11 (Item 8 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
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06719653 Supplier Number: 56230059 (USE FORMAT 7 FOR FULLTEXT)  
Texoil, Inc. Announces Pending Issuance of Series A Convertible Preferred Stock in the Aggregate Amount of \$22.0 Million.  
PR Newswire, p5051  
Oct 12, 1999  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 683

(USE FORMAT 7 FOR FULLTEXT)  
TEXT:

...and acted as financial advisor to Texoil. The Company intends to issue 2,750,000 **shares** of Series A Convertible Preferred Stock ("Preferred

...that didn't represent company's fair value. Polk has said it will delist its **shares** from American Stock Exchange and terminate SEC registration of its stock after completion of tender...of Fennimore facility and close of Appleton, Wis., plant that produced lithium batteries for PC **applications**. Lithium production has been moved to Portage, Wis., plant. Sales increased as Rayovac's **share** of alkaline market in units rose to 14.7% from 11.7%. Company reported double...

...Consumers can sign up by calling toll-free number 877-PC4-FREE or filling out **form** online at [www.intersquid.com](http://www.intersquid.com). Hong Kong-based OEM Elite Industrial Group has opened office...

...Philips, Sanyo, Sharp, Thomson. Newly formed Elite Electronics Group will coordinate efforts of 11 product- **specific** subsidiaries. Group employs 10,000, with hq in Hong Kong and plants in China. Activision... Space Town service. Sharp CE Product Mgr. Richard Martens said U.S. subsidiary has no **specific** plan now to market MI-EX1 or other palm information tool product in this country...

26/3,K/13 (Item 10 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
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06279508 Supplier Number: 54414274 (USE FORMAT 7 FOR FULLTEXT)  
**Merger: Bell Atlantic and GTE Outline Their Merger of Equals in Mailing to Shareowners.(Company Business and Marketing)**  
EDGE, on & about AT&T, pNA  
April 19, 1999  
Language: English Record Type: Fulltext  
Document Type: Newsletter; Trade  
Word Count: 437

(USE FORMAT 7 FOR FULLTEXT)  
TEXT:  
...of communications services in increasingly competitive local, national and global markets, according to the joint **proxy** statement and prospectus that the companies began mailing Wednesday to more than three million shareholders. In the cover letter included in the front of the joint **proxy** statement and prospectus, GTE Chairman and CEO Charles R. Lee and Bell Atlantic Chairman and...

...o The world's largest publisher of directory information, in both book and on-line **form**. o A major presence in international markets, with investments or operations in more than 30 countries outside the U.S. GTE and Bell Atlantic shareholders will **vote** on the merger at their annual meetings, which will be held on May 18 and May 19, respectively, in Atlanta. Information about the merger and other matters to be **voted** on at the companies' annual meetings are included in the joint **proxy** statement and prospectus. The joint **proxy** statement and prospectus is being posted at [www.mergerinfo.com](http://www.mergerinfo.com), the companies' merger Web site. Shareowners can grant their **proxy** to **vote** their **shares** by mail, by telephone or by the Internet. They may also **vote** in person at the annual meeting. **Instructions on voting shares** and links to Internet **voting** sites can be found at [www.mergerinfo.com](http://www.mergerinfo.com). Bell Atlantic and GTE announced in July...

26/3,K/14 (Item 11 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
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06104510 Supplier Number: 53680351 (USE FORMAT 7 FOR FULLTEXT)  
**Financial: AT&T's Fourth Quarter Operational Profits Were \$1.00 Per Share, An Increase of 45 Percent. 1998 Operational Profits Were \$3.45 Per**



23/5,K/18 (Item 7 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00847423

A SYSTEM AND METHOD FOR ONLINE DELIVERY OF INVESTOR DOCUMENTS AND  
TABULATION AND PROCESSING CERTAIN INVESTOR INSTRUCTIONS  
SYSTEME ET PROCEDE DE DISTRIBUTION EN LIGNE DE DOCUMENTS D'INVESTISSEURS,  
DE TABULATION ET DE TRAITEMENT DE CERTAINES INSTRUCTIONS  
D'INVESTISSEURS

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Legal Representative:

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Patent and Priority Information (Country, Number, Date):

Patent: WO 200180132 A2 20011025 (WO 0180132)

Application: WO 2001US12266 20010416 (PCT/WO US0112266)

Priority Application: US 2000197602 20000418; US 2001760745 20010117

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ

DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ

LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

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Main International Patent Class: G06F-017/60

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Detailed Description

Claims

Fulltext Word Count: 7356

English Abstract

French Abstract

Legal Status (Type, Date, Text)

Publication 20011025 A2 With declaration under Article 17(2)(a); without  
abstract; title not checked by the International  
Searching Authority.

Fulltext Availability:

Detailed Description

Detailed Description

... the Investors. When shareholder action is required, the Custodian

3

Agents receive and process those instructions and deliver the tabulated  
instructions to the appropriate party. For example, Custodian Agents  
collect voting instructions from the Investors for a shareholder  
meeting and deliver a single "master proxy" to the Issuer representing  
all the shares held in their customers' accounts that voted .

The current system has been the subject of criticism among market  
participants, corporations, and. regulators...

...to provide a system. and. method for delivering a means by which Investors can submit **share voting** or voluntary reorganization **instructions** online, and for receiving and processing **votes** and voluntary reorganization **instructions** .  
It is another object of the invention to provide a system, that can be seamlessly...314 of the e-mail or its equivalent.

If an action is required, such as **voting** or tendering **shares** , an interactive electronic **instruction** form is displayed. For a **voting** instruction form pertaining to a proxy solicitation, the investor can click 322 **choices** for each proposal and submit the **vote** . A confirmation can be automatically generated and sent back 325 to the Investor's e-mail account. If the **instruction** form pertains to a tender offer, the Investor can click 322 to confirm the desire to tender an Investor's **shares** into an offer.

The entire process (including shareholder voting/tender instructions) is captured in the...

...would like to view the documents.

If necessary, the EDT system 423 creates an online **voting instruction** form (VIF) using the Issuer's actual proxy card, and confirms the accuracy of the...

...423 will. confirm whether proposals are considered

13  
routine or nonroutine under NYSE broker discretionary **voting** rules.  
VIFs can include hyperlinks from the text of the proposal on the VIF to  
...

...would give the Investor 425 two options: click a single button and an Investor's **shares** will automatically be **voted** in accordance with management's recommendations or manually fill out the card and submit (inverted exclamation mark)t. The EDT system 423 then stores the electronic documents and **voting instruction** form in an "electronic envelope".

As shown in Fig. 4a, after the gathering of the...information.

The Investor 425 clicks on an issuer's name to review its documents or **vote** the **shares** . This brings up the second screen, which is the Event **Profile** . The Event **Profile** screen contains the Issuer's name and perhaps the corporate logo of the issuer, hyperlinks...

...in a variety of formats - see above), an indication of whether the Investor 425 has **voted** in the past (Voted/Unvoted) with the option to have the Investor's previous **voting instructions** e-mailed to an Investor 425, and a **voting instruction** form. The EDT system 423 may include an (inverted exclamation mark)con to allow the...

...the issuer system makes it available, and may include the option to purchase/view proxy **voting** recommendation reports from a third-party vendor. Other options will be known to those skilled...

...and are within the scope of the present invention.

As shown in Fig. 4b, the **voting instruction** form sets forth all of the proposals and management's (or other sender's) recommendation on **how** to **vote** . The Investor 425 is given the option to click a single button to **vote shares** as per management's recommendation, or to complete the VIF one proposal at a time.

In...

23/5,K/46 (Item 35 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00522038 \*\*Image available\*\*

**METHODS AND APPARATUS FOR GAUGING GROUP CHOICES**

**PROCEDES ET DISPOSITIF D'EVALUATION DE CHOIX COLLECTIFS**

Patent Applicant/Assignee:

CHOICE LOGIC CORPORATION,  
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FAGERSTROM Dana,

Inventor(s):

URKEN Arnold B,  
FAGERSTROM Dana,

Patent and Priority Information (Country, Number, Date):

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Application: WO 99US8417 19990416 (PCT/WO US9908417)

Priority Application: US 9882047 19980416

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FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU  
LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA  
UG US UZ VN YU ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ  
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Main International Patent Class: G06F-017/60

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Detailed Description

Claims

Fulltext Word Count: 25929

**English Abstract**

Methods and apparatus for a choice processor (Fig. 1) that gauges group choice in a computer-mediated environment. The system uses scientific analysis of collective choice processes and outcomes produced by different voting methods (Fig. 3) to provide result data to guide an individual or group in making decisions synchronously or asynchronously.

**French Abstract**

La presente invention concerne des procedes et un appareil s'appliquant a un processeur de choix qui evalue un choix collectif dans un environnement informatise. Le systeme utilise l'analyse scientifique des processus de choix collectifs et les resultats produits selon differents procedes de vote pour fournir des donnees de resultat devant guider un individu ou un groupe pour la prise de decision synchrone ou asynchrone. On obtient trois formes de donnees de resultat instantane. Pour la premiere forme, le systeme utilise des boites de dialogue utilisateur distinctives pour communiquer une description scientifique des conditions initiales du choix collectif en cours de lancement par un individu ou un groupe. Cette information subit un traitement visant a selectionner au moins un systeme de vote facilitant la realisation d'objectifs au niveau de l'organisation ou de l'individu. Pour la deuxieme forme, le systeme utilise une serie de nouveaux procedes de traitement des donnees visant a determiner les resultats de choix collectifs a travers tout un processus de choix collectif visant a identifier des differences et a communiquer aux initiateurs et aux participants les donnees de resultat produites par le systeme afin d'atteindre l'un au moins des objectifs definis. Et pour la troisieme forme, on utilise des procedes d'intelligence artificielle mettant en oeuvre de nouvelles regles pour fournir a l'utilisateur des analyses quantitatives et verbales indiquant comment ponderer les votes et comment interpreter un consensus ne constituant pas une information parfaite concernant les preferences et jugements du votant.

Fulltext Availability:  
Detailed Description

Detailed Description

... and position.

These options for voter identification are important because they enable individual and collective **choices** to be analyzed for patterns that are used to guide groups in resolving conflicts. For...

...may be interpreted as a consequence of intraorganizational departmental or division conflicts based on homogeneous **voting** patterns. The ability to identify background **characteristics** of the voters makes it possible to gain insight by determining if, say, engineers and...

...if some engineers and designers agree with each other. This type of insight affects the **choice** of a strategy for resolving the tie. (This insight is output by the review module in which a decision analysis submodule analyzes patterns in voter **preferences** and judgments.) Flexibility in voter identification is also useful in allowing individuals to differentiate the types and quantity of information they **share** in a group decision making process. For instance, the present invention allows a voter to...

...or more information than the standard input in the setup module. This option gives electronic **voting** a functional advantage over face-to-face, paper ballot, or mechanical **voting** by allowing individuals to avoid an all or nothing **choice** about identification. Individuals can control communication of personal information by receiving compensation in exchange for divulging certain aspects of their identity in a **voting** process. For example, a voter can enter financial information while participating in a poll...

...individual accounting submodule in the setup module. This submodule is also useful in accounting for **vote** trading arrangements in which a voter casts **votes** in a certain way on one issue to obtain **voting** support from other voters on another issue. This accounting is useful for implementing "fungible **voting**" systems in which **votes** are traded

1 5

SUBSTITUTE SHEET (RULE 26)

like money (Arnold B. Urken and Shamsul Akhand. (1976), "Vote Trading in a Fungible **Voting** System," Proceedings of the Annual Meeting of ORSATIMS.

Another feature of voter identification in the present invention is a voter identification **profile**. This **profile** includes standing information about voter identity including **preferences** on recurring issues. The creation of a **profile** in the setup module allows a voter to avoid repeated input that defines the types of data and information that he or she wants to **share** in **voting** processes. The **profile** can be defined in relation to individuals, groups, and agenda topics or issues. For instance...can employ all of the options 10 in the user interface module to input **choices** that are processed and output to the common data exchange module which, in turn, processes...

...the setup module. A voting system is a set of rules which describe how voter **preferences** are represented by allocating votes and how **votes** are aggregated to produce a collective outcome. Voting systems filter voter **preference** data that constitute a set of initial conditions that characterize voting processes.

A logical analysis...to provide consistency (H. Garcia Molina

55

SUBSTITUTE SHEET (RULE 26)

and D. Barbera, (1985). " **How** to Assign **Votes** in a Distributed System," Journal of the Association of Computing Machinery), manage distributed databases (R...the is voting method is preset.

67

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. Voters examine agendas and **vote** in block 3 of FIG. 9: information may be added to agenda item **detail** windows and data from public windows can be copied to private comment windows for comments; private comments can also be shared **votes** allocated in a wav that is consistent with the settings. depending on setup conditions, the...

...2 of FIG. 9 and can move back and forth as appropriate between brainstorming and **voting** in block 2 of FIG. 9  
**votes** and private comments can be mailed to **share** information in block 4  
1 0 of FIG. 9.

4. Review of voting outcomes in...

Interests and (b...

... and to such other terms which will be set out in the Scheme Document, the **Form** of Election, the Warrantholders' **Form** of Election and as may be required to comply with the rules and regulations of...

...benefits to be realised by the combined group, including but not limited to expansion of **Internet** services into Europe, that are subject to risks and uncertainties. Actual results may differ materially...2222/+(1) 408 817 2829 Concentric Network Corporation Laurence Blackall/Richard Brocksom 0181 957 1180 **Internet** Technology Group plc Richard Strang 0171 516 6937 Bear, Stearns International Graham Edgerton/Julian Briant...

... in number representing three fourths or more in value of the ITG Shareholders present and **voting**, either in person or by **proxy**, at the Court Meeting and at any separate class meeting which may be required by... any member of the wider Concentric Group having been obtained in terms and in a **form** satisfactory to Concentric from all appropriate Third Parties or persons with whom any member of...the Scottish courts, to the conditions set out above and in the Scheme Document, the **Form** of Election and the Warrantholders' **Form** of Election. The new Concentric Shares will be issued credited as fully paid and will...

...benefits to be realised by the combined group, including but not limited to expansion of **Internet** services into Europe, that are subject to risks and uncertainties. Actual results may differ materially...

3/3,K/17 (Item 7 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
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04757051 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
**Company data on the internet.**  
ACCOUNTANCY, p19  
January 06, 1999  
JOURNAL CODE: FACC LANGUAGE: English RECORD TYPE: FULLTEXT  
WORD COUNT: 242

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... Acts into the "internet age" '.  
Provided that the shareholder agreed, the company could transmit by **electronic** means any document - including the annual report and accounts and notices of company meetings - that...

... to send to its members. It could place documents on a website and also receive **proxy voting instructions in electronic form**.  
'I think there is merit in looking positively at these "quick win" ideas,' Mr McCartney...

3/3,K/18 (Item 8 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
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04333605 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
**EASTMAN KODAK: Kodak's annual meeting set for May 12 in Rochester**  
M2 PRESSWIRE  
February 15, 1999  
JOURNAL CODE: WMPR LANGUAGE: English RECORD TYPE: FULLTEXT  
WORD COUNT: 287

(USE FORMAT 7 OR 9 FOR FULLTEXT)

(This paper is also available in [PDF format](#), which is better for printing.)

# Security Considerations for Remote Electronic Voting over the Internet

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<http://avirubin.com/>

## Abstract

*This paper discusses the security considerations for remote electronic voting in public elections. In particular, we examine the feasibility of running national federal elections over the Internet. The focus of this paper is on the limitations of the current deployed infrastructure in terms of the security of the hosts and the Internet itself. We conclude that at present, our infrastructure is inadequate for remote Internet voting.*

## 1 Introduction

The right of individuals to vote for our government representatives is at the heart of the democracy that we enjoy. Historically, great effort and care has been taken to ensure that elections are conducted in a fair manner such that the candidate who should win the election based on the vote count actually does. Of equal importance is that public confidence in the election process remain strong. In the past changes to the election process have proceeded deliberately and judiciously, often entailing lengthy debates over even the minutest of details. These changes are approached so sensitively because a discrepancy in the election system threatens the very principles that make our society free, which in turn, affects every aspect of the way we live.

Times are changing. We now live in the Internet era, where decisions cannot be made quickly enough, and there is a perception that anyone who does not jump on the technology bandwagon is going to be left far behind. Businesses are moving online at astonishing speed. The growth of online interaction and presence can be witnessed by the exponential increase in the number of people with home computers and Internet access. There is a prevailing sentiment that any organization that continues in the old ways is obsolete. So, despite the natural inclination to treat our election process as the precious, delicate and fragile process that it is, the question of using the new advances in technology to improve our elections is natural.

The feasibility of *remote electronic voting* in public elections is currently being studied by the National Science Foundation by request of the President of the United States (see <http://www.netvoting.org/>). Remote electronic voting refers to an election process whereby people can cast their votes over the Internet, most likely through a web browser, from the comfort of their home, or possibly any other location where



they can get Internet access. There are many aspects of elections besides security that bring this type of voting into question. The primary ones are

**coercibility** the danger that outside of a public polling place, a voter could be coerced into voting for a particular candidate.

**vote selling** the opportunity for voters to sell their vote.

**vote solicitation** the danger that outside of a public polling place, it is much more difficult to control vote solicitation by political parties at the time of voting.

**registration** the issue of whether or not to allow online registration, and if so, how to control the level of fraud.

The possibility of widely distributed locations where votes can be cast changes many aspects of our carefully controlled elections as we know them. The relevant issues are of great importance, and could very well influence whether or not such election processes are desirable. However, in this paper, we focus solely on the security considerations as they relate to conducting online public elections. In particular, we look at remote online voting, as opposed to online voter registration, which is a separate, but important and difficult problem. We also focus solely on public elections, as opposed to private elections, where the threats are not as great, and the environment can be more controlled.

The importance of security in elections cannot be overstated. The future of our country, and the free world for that matter, rests on public confidence that the people have the power to elect their own government. Any process that has the potential to threaten the integrity of the system, or even the perceived integrity of the system, should be treated with the utmost caution and suspicion.

## 2 The voting platform

The type of remote electronic voting that we discuss in this paper involves regular Internet users with personal computers and standard operating systems and software. For the sake of the discussion, we focus on Intel machines running Microsoft operating systems with Microsoft or Netscape browsers, and voters participating from home, communicating over a TCP/IP network attached to the Internet. While this is a simplification, it is representative of the vast majority of users under consideration. In this discussion, we refer to the voting platform simply as a *host*.

Threats to hosts can be described as a *malicious payload* and a *delivery mechanism* (A malicious payload is software or configuration information designed to do harm.). Both of these have advanced in sophistication and automation in the past couple of years. The attacks are more sophisticated in the sense that they can do more damage, are more likely to succeed, and disguise themselves better than before. They are more automated in that more and more toolkits have been developed to enable unsophisticated computer users to launch the attacks.

### 2.1 Malicious payload

There are literally hundreds of attack programs that we could discuss in this section. One only need to visit the web site of any number of security software vendors to see the long lists of exploits that affect hosts to various degrees. The fact of the matter is that on the platforms currently in the most widespread use, once a malicious payload reaches a host, there is virtually no limit to the damage it can cause. With today's hardware and software architectures, a malicious payload on a voting client can actually change the voter's vote, without the voter or anyone else noticing, regardless of the kind of encryption or voter authentication in place. This is because the malicious code can do its damage before the encryption and authentication is

applied to the data. The malicious module can then erase itself after doing its damage so that there is no evidence to correct, or even detect the fraud. To illustrate, we focus the discussion on two particular malicious payloads that each exemplify the level of vulnerability faced by hosts.

The first program we describe, Backorifice 2000 (BO2K) is packaged and distributed as a legitimate network administration toolkit. In fact, it is very useful as a tool for enhancing security. It is freely available, fully open source, extensible, and stealth (defined below). The package is available at <http://www.bo2k.com/>. BO2K contains a remote control server that when installed on a machine, enables a remote administrator (or attacker) to view and control every aspect of that machine, as though the person were actually sitting at the console. This is similar in functionality to a commercial product called PCAnywhere. The main differences are that BO2K is available in full source code form and it runs in stealth mode.

The open source nature of BO2K means that an attacker can modify the code and recompile such that the program can evade detection by security defense software (virus and intrusion detection) that look for known *signatures* of programs. A signature is a pattern that identifies a particular known malicious program. The current state of the art in widely deployed systems for detecting malicious code does not go much beyond comparing a program against a list of attack signatures. In fact, most personal computers in peoples' houses have no detection software on them. BO2K is said to run in stealth mode because it was carefully designed to be very difficult to detect. The program does not appear in the Task Menu of running processes, and it was designed so that even an experienced administrator would have a difficult time discovering that it was on a computer. The program is difficult to detect even while it is running.

There can be no expectation that an average Internet user participating in an online election from home could have any hope of detecting the existence of BO2K on his computer. At the same time, this program enables an attacker to watch every aspect of the voting procedure, intercept any action of the user with the potential of modifying it without the user's knowledge, and to further install any other program of the attackers desire, even ones written by the attacker, on the voting user's machine. The package also monitors every keystroke typed on the machine and has an option to remotely lock the keyboard and mouse. It is difficult, and most likely impossible, to conceive of a web application (or any other) that could prevent an attacker who installs BO2K on a user's machine from being able to view and/or change a user's vote.

The second malicious payload that is worth mentioning is the CIH virus, also known as the Chernobyl virus. There are two reasons why we choose this example over the many other possible ones. The first is that the malicious functionality of this virus is triggered to activate on a particular day. April 26, 1999 was a disastrous day in Asia, where the virus had not been that well known, and thousands of computers were affected. This raises concern because election dates are known far in advance. The second reason for choosing this example is that the damage that it caused was so severe, that it often required physically taking the computer to the shop for repair. The code modified the BIOS of the system in such a way that it could not boot. The BIOS is the part of the computer that initializes and manages the relationships and data flow between the system devices, including the hard drive, serial and parallel ports, and the keyboard. A widespread activation of such a virus on the day of an election, or on a day leading up to an election could potentially disenfranchise many voters, as their hosts would not be usable. This threat is increased by the possibility that the spread of the virus could be orchestrated to target a particular demographic group, thus having a direct effect on the election, and bringing the integrity of the entire process into question.

It does not take a very sophisticated malicious payload to disrupt an election. A simple attack illustrates how easy it is to thwart a web application such as voting. Netscape and Internet Explorer, the two most common browsers have an option setting that indicates that all web communication should take place via a *proxy*. A proxy is a program that is interposed between the client and the server. It has the ability to completely control all Internet traffic between the two. Proxies are useful for many Internet applications

and for sites that run certain kinds of firewalls. The user sets a proxy by making a change in the preferences menu. The browser then adds a couple of lines to a configuration file. For example, in Netscape, the existence of the following lines in the file

`c:\program_files\netscape\prefs.js`

delivers all web content to and from the user's machine to a program listening on port 1799 on the machine `www.badguy.com`.

```
user_pref("network.proxy.http", "www.badguy.com");
user_pref("network.proxy.http_port", 1799);
```

If an attacker can add these two lines (substituting his hostname for `www.badguy.com`) to the preferences file on somebody's machine, he can control every aspect of the web experience of that user. There are also ways of doing this without leaving a trail that leads directly to the attacker. While proxies cannot be used to read information in a secure connection, they can be used to spoof a user into a secure connection with the attacker, instead of the actual voting server, without the user realizing it. The next section explains various ways that an attacker could effect changes on a voter's computer.

## ***2.2 Delivery mechanism***

The previous section gave three examples of what an attacker could do to disrupt an election if the attacker could install code of his choosing on peoples' computers. This section deals with how this installation could happen.

The first, and most obvious mechanism is physical installation. Most people do not keep their computers in a carefully controlled, locked environment. Imagine someone who develops an application to attack the voting system, such as the two described above, prepares a floppy disk with the code on it, and then installs it on as many machines as possible. This could be accomplished by breaking into houses, by accessing machines in someone's house when visiting, by installing the program on public machines in the library, etc. The bottom line is that many people can obtain physical access to many other peoples' computers at some point leading up to an election. Then, malicious code can be delivered that can trigger any action at a later date, enable future access (as in the case of BO2K), or disrupt normal operation at any time. Considering that many of the attack programs that we are seeing these days run in stealth mode, malicious code could be installed such that average computer users cannot detect its presence.

While the physical delivery of malicious code is a serious problem, it is nowhere near as effective as remote automated delivery. By now, most people have heard of the Melissa virus and the I Love You bug. These are the better-known ones, but many such attacks happen all the time. In fact, the most widespread of the e-mail viruses, Happy99, has received very little media attention. Typically, these attacks cause temporary disruption in service, and perform some annoying action. In most of the cases, the attacks spread wider and faster than their creators ever imagined. One thing that all of these attacks have in common is that they install some code on the PCs that are infected. There is a misconception by many people that users must open an attachment in order to activate them. In fact, one virus called Bubbleboy was triggered as soon as a message was previewed in the Outlook mailer, requiring no action on the part of the user. Any one of these e-mail viruses could deliver the attack code described in the previous section.

It is naïve to think that we have seen the worst of the Internet viruses, worms, and bugs. In the last several months, the incidents of new attacks have grown much faster than our ability to cope with them. This is a trend that is likely to continue.

E-mail viruses are not the only way that malicious code can be delivered to hosts. The computers in most peoples' houses are running operating systems with tens of thousands of lines of code. These systems are known to be full of operational bugs as well as security flaws. On top of these platforms, users are typically running many applications with security problems. These security flaws can be exploited remotely to install malicious code on them. The most common example of such a flaw is a buffer overflow. A buffer overflow occurs when a process assigns more data to a memory location than was expected by the programmer. The consequence is that that attacker can manipulate the computer's memory to cause arbitrary malicious code to run. There are ways to check for and prevent this in a program, and yet buffer overflows are the most common form of security flaw in deployed systems today.

Perhaps the most likely candidate for delivering a widespread attack against an election is an ActiveX control, downloaded automatically and unknowingly from a Web server, which installs a Trojan horse (hidden program) that later interferes with voting. Several documented attacks against Windows systems operated exactly this way. In fact, any application that users are lured into downloading can do the same. This includes browser plug-ins, screen savers, calendars, and any other program that is obtained over the Internet. Another danger is that the application itself may be clean, but the installer might install a dynamically linked library (DLL) or other malicious module, or overwrite operating system modules. The number of ways is legion, and most users are not aware of the dangers when they add software to their computers. As long as there are people out there who download and install software over the Internet onto today's personal computers running today's operating systems, it will be easy for attackers to deliver code that changes their votes, to peoples' computers.

User's who open attachments and download software from the network are not the only ones putting their votes at risk. AOL, for instance, is in a position to control a large fraction of the total votes, because all of their users run AOL's proprietary software. There are dozens of software vendors whose products run on many peoples' home machines. For example, there are millions of personal computers running Microsoft office, Adobe Acrobat, RealPlayer, WinZip, Solitaire, and the list goes on. These vendors are in a position to modify any configuration file and install any malicious code on their customers' machines, as are the computer manufacturers and the computer vendors. Even if the company is not interested in subverting an election, all it takes is one rogue programmer who works for any of these companies. Most of the software packages require an installation procedure where the system registry is modified, libraries are installed, and the computer must reboot. During any stage of that process, the installation program has complete control of all of the software on that machine. In current public elections, the polling site undergoes careful scrutiny. Any change to the process is audited carefully, and on election day, representatives from all of the major parties are present to make sure that the integrity of the process is maintained. This is in sharp contrast to holding an election that allows people to cast their votes from a computer full of insecure software that is under the direct control of several dozen software and hardware vendors and run by users who download programs from the Internet, over a network that is known to be vulnerable to total shutdown at any moment.

### **3 The communications infrastructure**

A network connection consists of two endpoints and the communication between them. The previous section dealt with one of the endpoints, the user's host. The other endpoint is the elections server. While it is in no way trivial, the technology exists to provide reasonable protection on the servers. This section deals with the communication between the two endpoints.

Cryptography can be used to protect the communication between the user's browser and the elections server. This technology is mature and can be relied upon to ensure the integrity and confidentiality of the

network traffic. This section does not deal with the classic security properties of the communications infrastructure; rather, we look at the *availability* of the Internet service, as required by remote electronic voting over the Internet.

Most people are aware of the massive distributed denial of service (DDOS) attack that brought down many of the main portals on the Internet in February, 2000. While these attacks brought the vulnerability of the Internet to denial of service attacks to the mainstream public consciousness, the security community has long been aware of this, and in fact, this attack was nothing compared to what a dedicated and determined adversary could do. The February attack consisted of the installation and execution of publicly available attack scripts. Very little skill was required to launch the attack, and minimal skill was required to install the attack.

The way DDOS works is that a program called a *daemon* is installed on many machines. Any of the delivery mechanisms described above can be used. One other program is installed somewhere called the *master*. These programs are placed anywhere on the Internet, so that there are many, unwitting accomplices to the attack, and the real attacker cannot be traced. The system lies dormant until the attacker decides that it is time to strike. At that point, the attacker sends a signal to the master, using a publicly available tool, indicating a target to attack. The master conveys this information to all of the daemons, who simultaneously flood the target with more Internet traffic than it can handle. The effect is that the target machine is completely disabled.

We experimented in the lab with one of the well known DDOS programs called Tribe Flood Network (TFN), and discovered that the attack is so potent, that even one daemon attacking a Unix workstation disabled it to the point where it had to be rebooted. The target computer was so overwhelmed that we could not even move the cursor with the mouse.

There are tools that can be easily found by anyone with access to the web that automate the process of installing daemons, masters, and the attack signal. People who attack systems with such tools are known as *script kiddies*, and represent a growing number of people. In an election, the adversary is more likely to be someone at least as knowledgeable as the writers of the script kiddy tools, and possibly with the resources of a foreign government.

There are many other ways to target a machine and make it unusable, and it is not too difficult to target a particular set of users, given domain name information that can easily be obtained from the online registries such as Register.com and Network Solutions, or directly from the WHOIS database. The list of examples of attacks goes on and on. A simple one is the *ping of death*, in which a packet can be constructed and split into two fragments. When the target computer assembles the fragments, the result is a message that is too big for the operating system to handle, and the machine crashes. This has been demonstrated in the lab and in the wild, and script kiddy tools exist to launch it.

The danger to Internet voting is that it is possible that during an election, communication on the Internet will stop because attackers cause routers to crash, election servers to get flooded by DDOS, or a large set of hosts, possibly targeted demographically, to cease to function. In some close campaigns, even an untargeted attack that changes the vote by one percentage point could sway the election.

## 4 Social engineering

*Social Engineering* is the term used to describe attacks that involve fooling people into compromising their security. Talking with election officials, one discovers that one of the issues that they grapple with is the

inability of many people to follow simple directions. It is surprising to learn that, for example, when instructed to circle a candidate's name, people will often underline it. While computers would seem to offer the opportunity to provide an interface that is tightly controlled and thus less subject to error, this is counter to the typical experience most users have with computers. For non-Computer Scientists, computers are often intimidating and unfamiliar. User interfaces are often poor and create confusion, rather than simplifying processes.

A remote voting scheme will have some interface. The actual design of that interface is not the subject of this paper, but it is clear that there will be some interface. For the system to be secure, there must be some way for voters to know that they are communicating with the election server. The infrastructure does exist right now for computer security specialists, who are suspicious that they could be communicating with an imposter, to verify that their browser is communicating with a valid election server. The SSL protocol and server side certificates can be used for this. While this process has its own risks and pitfalls, even if we assume that it is flawless, it is unreasonable to assume that average Internet users who want to vote on their computers can be expected to understand the concept of a server certificate, to verify the authenticity of the certificate, and to check the active ciphersuites to ensure that strong encryption is used. In fact, most users would probably not distinguish between a page from an SSL connection to the legitimate server and a non-SSL page from a malicious server that had the exact same look as the real page.

There are several ways that an attacker could spoof the legitimate voting site. One way would be to send an e-mail message to a user telling that user to click on a link, which would then bring up the fake voting site. The adversary could then collect the user's credentials and in a sense, steal the vote. An attacker could also set up a connection to the legitimate server and feed the user a fake web page, and act as a man in the middle, transferring information between the user and the web server, with all of the traffic under the attacker's control. This is probably enough to change a user's vote, regardless of how the application is implemented.

A more serious attack is possible by targeting the Internet's Domain Name Service (DNS). The DNS is used to maintain a mapping from IP addresses, which computers use to reference each other (e.g. 135.207.18.199) to domain names, which people use to reference computers (e.g. www.research.att.com). The DNS is known to be vulnerable to attacks, such as cache poisoning, which change the information available to hosts about the IP addresses of computers. The reason that this is serious is that a DNS cache poisoning attack, along with many other known attacks against DNS, could be used to direct a user to the wrong web server when the user types in the name of the election server in the browser. Thus, a user could follow the instructions for voting, and yet receive a page that looked exactly like what it is supposed to look like, but actually is entirely controlled by the adversary. Detailed instructions about checking certificate validity are not likely to be understood nor followed by a substantial number of users.

Another problem along these lines is that any computer under the control of an adversary can be made to simulate a valid connection to an election server, without actually connecting to anything. So, for example, a malicious librarian or cyber café operator could set up public computers that appear to accept votes, but actually do nothing with the votes. This could even work if the computers were not connected to the Internet, since no messages need to be sent or received to fool a user into believing that their vote was cast. Setting up such machines in districts known to vote a certain way could influence the outcome of an election.

## 5 Specialized devices

One potential enabler at our disposal is the existence of tamper-resistant devices, such as smart cards. Cryptographic keys can be generated and stored on these devices, and they can perform computations, such

that proper credentials can be exchanged between a client and a voting server. However, there are some limitations to the utility of such devices. The first is that there is not a deployed base of smart card readers on peoples' personal computers. Any system that involves financial investment on the part of individuals in order to vote is unacceptable. Some people are more limited in their ability to spend, and it is unfair to decrease the likelihood that such people vote. It would, in effect, be a poll tax. This issue is often referred to as the *digital divide*.

Even if everybody did have smart card readers on their computers, there are security concerns. The smart card does not interact directly with the election server. The communication goes through the computer. Malicious code installed on the computer could misuse the smart card. At the very least, the code could prevent the vote from actually being cast, while fooling the user into believing that it was. At worst, it could change the vote.

Other specialized devices, such as a cell phone with no general-purpose processor, equipped with a smart card, offer more promise of solving the technical security problems. However, they introduce even greater digital divide issues. In addition, the user interface issues, which are fundamental to a fair election, are much more difficult. This is due to the more limited displays and input devices. Finally, while computers offer some hope of improving the accessibility of voting for the disabled, specialized devices are even more limiting in that respect.

## 6 Is there hope?

Given the current state of insecurity of hosts and the vulnerability of the Internet to manipulation and denial of service attacks, there is no way that a public election of any significance involving remote electronic voting could be carried out securely. So, is there any hope that this will change?

For this to happen, the next generation of personal computers that are widely adopted must have hardware support to enable a *trusted path* between the user and the election server. There must be no way for malicious code to be able to interfere with the normal operation of applications. Efforts such as the Trusted Computing Platform Alliance (TCPA) (see <http://www.trustedpc.org/home/home.htm>) must be endorsed. The challenge is great because to enable secure remote electronic voting, the vast majority of computer systems need to have the kind of high assurance aspired to by the TCPA. It is not clear whether or not the majority of PC manufacturers will buy into the concept. The market will decide. While it is unlikely that remote electronic voting will be the driving force for the design of future personal computers, the potential for eliminating the hazards of online electronic commerce could potentially fill that role.

One reason that remote electronic voting presents such a security challenge is that any successful attack would be very high profile, a factor that motivates much of the hacking activity to date. Even scarier is that the most serious attacks would come from someone motivated by the ability to change the outcome without anyone noticing. The adversaries to an election system are not teenagers in garages but foreign governments and powerful interests at home and abroad. Never before have the stakes been so high.

## 7 Conclusions

A certain amount of fraud exists in the current offline election system. It is tolerated because there is no alternative. The system is localized so that it is very unlikely that a successful fraud could propagate beyond a particular district. Public perception is that the system works, although there may be a few kinks in it here and there. There is no doubt that the introduction of something like remote electronic voting will,

and should, come under careful scrutiny, and in fact, the system may be held up to a higher standard. Given the current state of widely deployed computers in peoples' homes, the vulnerability of the Internet to denial of service attacks, and the unreliability of the Domain Name Service, we believe that the technology does not yet exist to enable remote electronic voting in public elections.

## Acknowledgements

We thank all of the participants of the Internet Policy Institute e-voting workshop for a wonderful exchange of ideas. Special thanks go to Lorrie Cranor, Andrew Hume, and David Jefferson for valuable input.



#### Distinct Advantages

Making the annual report available on Cisco's website had ...give or take one minor hiccup. "The printed version is in English, but with the **online** version we were able to expand by translating the shareholders' letter into different languages. We do our translations here, but we always check them in-country now, because once **Internet** was translated into French as hair net'," King said.

But despite the advantages of **online** annual reports, which include convenience for the user, cheaper production costs, and an additional marketing...

...I had 2.2 million copies printed. About 10% of investors read the annual report **online**. We put the **proxy form online**, but we made it downloadable as well. Some shareholders took us up on it, but definitely not the majority. I don't think all investors are ready for the **Internet** Generation just yet," she said.

Many Happy to Forgo

Although the survey also found that of Cisco shareholders who had accessed the company's annual report **online**, 41.5% said they would be happy to forgo the printed copy against 4.8% who didn't want to receive the annual report over the **Internet**, King said that the majority, at 53.7%, still wanted to receive both versions.

"Every year the board of directors asks about just producing an **online** version, but so many people want a printed version as well that we do it...

...contains all the information I need."

As it stands, though, analysts are left with no **choice** but to wade through hundreds of annual reports

3/3,K/37 (Item 3 from file: 267)

DIALOG(R)File 267:Finance & Banking Newsletters  
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04546171

**Internet Proxy Voting Needs a Push**  
Staff Reports

Investor Relations Business

March 1,1999 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: SECURITIES DATA PUBLISHING

LANGUAGE: ENGLISH

WORD COUNT: 334

RECORD TYPE: FULLTEXT

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#### TEXT:

Despite proclamations each of the past three years that **Internet proxy voting** has arrived, the numbers tell a different story.

Speaking at a recent Glasser Legal Works conference in New York, Georgeson & Co. Chairman John Wilcox said the average **proxy vote** response of retail shareholders is 75% to 85% paper-based. Telephone **voting** is a distant second with 8% and only 1% to 2% use the **Internet**, Wilcox said.

"There's not a whole lot of information about who's been doing...

...But Wilcox then pointed to a client firm that changed what he called a typical **Internet voting** profile. What worked for this particular client was letting its shareholders know that **electronic voting** was available, Wilcox said.

The current **voting instructions** sent out by ADP Investor Communication Services on **proxy forms** does note that **electronic** options are available, but the legend is small and easily missed, Wilcox said, noting that...

...using a separate advertising sheet, sent through ADP, in "super plain English," how they could **vote** their **proxies** through the **Internet** and telephone, Wilcox said.

Using this promotional technique, the company lowered paper- **voting** to 46%, raised telephone **voting** to 34% and upped **Internet voting** to 9%.

"There's been precious little marketing in this area," Wilcox said.  
"There is..."

...will send their retail shareholders separate circulars, including Walt Disney Co., in hopes of boosting **electronic voting** numbers. It may well be worth it: **votes** costs 34 cents apiece by mail, 18 cents a piece by the telephone and three cents apiece by the **Internet**.

"The statistics on **Internet proxy - voting** have been low, but it's not an indication of what investors are capable of," Wilcox said.

This year, ADP is making **electronic voting** available to every public company except those involved in **proxy** fights.

3/3,K/38 (Item 4 from file: 267)  
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04540492

**Transfer Agent Business Primes for Change: Still, the Outlook is Difficult, According to Industry Consultants**

Matthew Greco

Investor Relations Business

October 26, 1998 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: SECURITIES DATA PUBLISHING

LANGUAGE: ENGLISH

WORD COUNT: 1716

RECORD TYPE: FULLTEXT

(c) SECURITIES DATA PUBLISHING All Rts. Reserv.

TEXT:

...attractive prices because there will be fewer players, he said. Also, costs in terms of **software** will not greatly increase when an agent moves from two million to 20 million accounts...

...revenue out there," he said. "Companies are scrambling for a shrinking amount of revenue."

The **Internet** and company Intranet systems are keys to cutting costs for transfer agents. However, transfer agents are not exploiting the potential of this technology enough, Hagberg and Pitou agreed.

The **Internet** and Intranet can greatly cut costs by eliminating the paper-based nature of the business by allowing **online proxy votes** and distributing shareholder information that would normally be mailed, they said.

"Most investors don't want to deal with sending **instructions** in writing, stock certificates and 15 different pieces of paper from their various accounts," Hagberg...VP Mary Ann Butera. The companies want ADP to help set up annual meetings, process **proxy votes** and mail materials to shareholders so they can develop better relationships with their shareholders, Butera...

...Jim Balsan, VP at ChaseMellon.

ChaseMellon was one of the first transfer agents to offer **proxy voting** and distribution of materials **online** to employees over Intranet systems, Balsan said. While many agents have focused on offering these services over the **Internet** to regular shareholders, ChaseMellon has concentrated on using existing Intranet systems to distribute information, Balsan...

...more clients asking for it, Balsan said.

More shareholder inquiries are being made over the **Internet**, Balsan

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File 350:Derwent WPIX 1963-2002/UD,UM &UP=200239

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File 344:CHINESE PATENTS ABS MAY 1985-2002/MAY

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File 347:JAPIO Oct 1976-2002/Feb(Updated 020604)

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File 371:French Patents 1961-2002/BOPI 200209

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| Set | Items   | Description                                                                                                    |
|-----|---------|----------------------------------------------------------------------------------------------------------------|
| S1  | 1910    | VOTE OR VOTES OR VOTED OR VOTING                                                                               |
| S2  | 26924   | SHARE OR SHARES                                                                                                |
| S3  | 1666487 | PREFERENCE? ? OR INSTRUCTION? ? OR DETAIL? ? OR SPECIFIC? ?<br>OR CHOICE? ? OR PROFILE? ? OR CHARACTERISTIC? ? |
| S4  | 3188962 | FORM? ? OR TEMPLATE? ? OR APPLICATION? ?                                                                       |
| S5  | 3541776 | COMMUNICAT? OR SEND? OR SENT? OR TRANSMIT? OR FORWARD? OR -<br>DESPATCH? OR TRANSFER? OR TRANSMISSION          |
| S6  | 1654699 | CONVERT? OR CONVERSION? OR DIGITAL? OR DIGITI? OR ALTER?                                                       |
| S7  | 152449  | (HARD OR ORIGINAL) (2W) (COPY OR COPIES) OR CARD OR CARDS                                                      |
| S8  | 12      | S1(6N) (RECOMMENDATION? ? OR SUGGESTION? ? OR INSTRUCTION? ?<br>OR IDEA? ?)                                    |
| S9  | 1       | HOW(2W)S1                                                                                                      |
| S10 | 1500    | PROXY OR PROXIES                                                                                               |
| S11 | 1       | S1(S)S2(S)S3                                                                                                   |
| S12 | 5       | S1 AND S2 AND S3                                                                                               |
| S13 | 4       | S12 NOT S11                                                                                                    |
| S14 | 3       | S1 AND S10                                                                                                     |

?show files;ds

File 15:ABI/Inform(R) 1971-2002/Jun 25  
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 File 16:Gale Group PROMT(R) 1990-2002/Jun 24  
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| Set | Items   | Description                                                                                                    |
|-----|---------|----------------------------------------------------------------------------------------------------------------|
| S1  | 495733  | VOTE OR VOTES OR VOTED OR VOTING                                                                               |
| S2  | 3974514 | SHARE OR SHARES                                                                                                |
| S3  | 4491713 | PREFERENCE? ? OR INSTRUCTION? ? OR DETAIL? ? OR SPECIFIC? ?<br>OR CHOICE? ? OR PROFILE? ? OR CHARACTERISTIC? ? |
| S4  | 5184976 | FORM? ? OR TEMPLATE? ? OR APPLICATION? ?                                                                       |
| S5  | 7347120 | COMMUNICAT? OR SEND? OR SENT? OR TRANSMIT? OR FORWARD? OR -<br>DESPATCH? OR TRANSFER? OR TRANSMISSION          |
| S6  | 3670819 | CONVERT? OR CONVERSION? OR DIGITAL? OR DIGITI? OR ALTER?                                                       |
| S7  | 1118925 | (HARD OR ORIGINAL) (2W) (COPY OR COPIES) OR CARD OR CARDS                                                      |
| S8  | 5322    | S1(6N) (RECOMMENDATION? ? OR SUGGESTION? ? OR INSTRUCTION? ?<br>OR IDEA? ?)                                    |
| S9  | 3241    | HOW(2W)S1                                                                                                      |
| S10 | 114658  | PROXY OR PROXIES                                                                                               |
| S11 | 3723    | S1(S)S2(S)S3                                                                                                   |
| S12 | 52287   | S1 AND S2 AND S3                                                                                               |
| S13 | 48564   | S12 NOT S11                                                                                                    |
| S14 | 30007   | S1 AND S10                                                                                                     |
| S15 | 19124   | S1(S)S10                                                                                                       |
| S16 | 22241   | S11 OR S15                                                                                                     |
| S17 | 338     | S3(S)S9                                                                                                        |
| S18 | 22485   | S16 OR S17                                                                                                     |
| S19 | 88      | S6(S)S7(S)S1(S)S4                                                                                              |
| S20 | 3794    | S11 OR S19                                                                                                     |
| S21 | 2104    | S1(S)S3(S)S4                                                                                                   |
| S22 | 101     | S8(S)S21                                                                                                       |
| S23 | 4067    | S20 OR S17                                                                                                     |
| S24 | 444     | S10(S)S11                                                                                                      |
| S25 | 54      | S4(S)S24                                                                                                       |
| S26 | 27      | RD (unique items)                                                                                              |
| ?   |         |                                                                                                                |

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| Set | Items  | Description                                                                                                    |
|-----|--------|----------------------------------------------------------------------------------------------------------------|
| S1  | 34825  | VOTE OR VOTES OR VOTED OR VOTING                                                                               |
| S2  | 114436 | SHARE OR SHARES                                                                                                |
| S3  | 126632 | PREFERENCE? ? OR INSTRUCTION? ? OR DETAIL? ? OR SPECIFIC? ?<br>OR CHOICE? ? OR PROFILE? ? OR CHARACTERISTIC? ? |
| S4  | 100863 | FORM? ? OR TEMPLATE? ? OR APPLICATION? ?                                                                       |
| S5  | 154081 | COMMUNICAT? OR SEND? OR SENT? OR TRANSMIT? OR FORWARD? OR -<br>DESPATCH? OR TRANSFER? OR TRANSMISSION          |
| S6  | 93374  | CONVERT? OR CONVERSION? OR DIGITAL? OR DIGITI? OR ALTER?                                                       |
| S7  | 88333  | (HARD OR ORIGINAL) (2W) (COPY OR COPIES) OR CARD OR CARDS                                                      |
| S8  | 355    | S1(6N) (RECOMMENDATION? ? OR SUGGESTION? ? OR INSTRUCTION? ?<br>OR IDEA? ?)                                    |
| S9  | 185    | HOW(2W) S1                                                                                                     |
| S10 | 4149   | PROXY OR PROXIES                                                                                               |
| S11 | 405    | S1(S) S2(S) S3                                                                                                 |
| S12 | 2098   | S1 AND S2 AND S3                                                                                               |
| S13 | 1693   | S12 NOT S11                                                                                                    |
| S14 | 1441   | S1 AND S10                                                                                                     |
| S15 | 1042   | S1(S) S10                                                                                                      |
| S16 | 1365   | S11 OR S15                                                                                                     |
| S17 | 22     | S3(S) S9                                                                                                       |
| S18 | 1374   | S16 OR S17                                                                                                     |
| S19 | 29     | S6(S) S7(S) S1(S) S4                                                                                           |
| S20 | 431    | S11 OR S19                                                                                                     |
| S21 | 239    | S1(S) S3(S) S4                                                                                                 |
| S22 | 13     | S8(S) S21                                                                                                      |
| S23 | 445    | S20 OR S17                                                                                                     |
| S24 | 80     | S10(S) S11                                                                                                     |
| S25 | 17     | S4(S) S24                                                                                                      |
| S26 | 16     | RD (unique items)                                                                                              |

?t26/3,k/all

26/3,K/1 (Item 1 from file: 625)

DIALOG(R)File 625:American Banker Publications

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0184689

**Measures to Ward Off Unwanted Merger Attempts: Prepping for a Hostile Environment**

CFO Alert - July 8, 1996; Pg. 6; Vol. 9, No. 27

DOCUMENT TYPE: Newsletter

LANGUAGE: English

RECORD TYPE: Fulltext

WORD COUNT: 1,706

TEXT:

...general steps to warding off  
unwanted acquirers, and the following explains a number of more specific  
options that provide a bank with more flexibility and control over its  
future. The article...

...this  
way, an insurgent can elect at most one-third of the directors in any  
proxy  
contest.

?show files;ds

File 348:EUROPEAN PATENTS 1978-2002/Jun W03

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File 349:PCT FULLTEXT 1983-2002/UB=20020620,UT=20020613

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| Set | Items   | Description                                                                                                    |
|-----|---------|----------------------------------------------------------------------------------------------------------------|
| S1  | 2238    | VOTE OR VOTES OR VOTED OR VOTING                                                                               |
| S2  | 51234   | SHARE OR SHARES                                                                                                |
| S3  | 973105  | PREFERENCE? ? OR INSTRUCTION? ? OR DETAIL? ? OR SPECIFIC? ?<br>OR CHOICE? ? OR PROFILE? ? OR CHARACTERISTIC? ? |
| S4  | 1984715 | FORM? ? OR TEMPLATE? ? OR APPLICATION? ?                                                                       |
| S5  | 1188596 | COMMUNICAT? OR SEND? OR SENT? OR TRANSMIT? OR FORWARD? OR -<br>DESPATCH? OR TRANSFER? OR TRANSMISSION          |
| S6  | 882996  | CONVERT? OR CONVERSION? OR DIGITAL? OR DIGITI? OR ALTER?                                                       |
| S7  | 65808   | (HARD OR ORIGINAL) (2W) (COPY OR COPIES) OR CARD OR CARDS                                                      |
| S8  | 49      | S1(6N) (RECOMMENDATION? ? OR SUGGESTION? ? OR INSTRUCTION? ?<br>OR IDEA? ?)                                    |
| S9  | 26      | HOW(2W)S1                                                                                                      |
| S10 | 4341    | PROXY OR PROXIES                                                                                               |
| S11 | 32      | S1(S)S2(S)S3                                                                                                   |
| S12 | 489     | S1 AND S2 AND S3                                                                                               |
| S13 | 457     | S12 NOT S11                                                                                                    |
| S14 | 108     | S1 AND S10                                                                                                     |
| S15 | 21      | S1(S)S10                                                                                                       |
| S16 | 50      | S11 OR S15                                                                                                     |
| S17 | 13      | S3(S)S9                                                                                                        |
| S18 | 60      | S16 OR S17                                                                                                     |
| S19 | 22      | S6(S)S7(S)S1(S)S4                                                                                              |
| S20 | 53      | S11 OR S19                                                                                                     |
| S21 | 200     | S1(S)S3(S)S4                                                                                                   |
| S22 | 10      | S8(S)S21                                                                                                       |
| S23 | 63      | S20 OR S17                                                                                                     |

?t23/5,k/all

?show files;ds

File 9:Business & Industry(R) Jul/1994-2002/Jun 24  
 (c) 2002 Resp. DB Svcs.  
 File 20:Dialog Global Reporter 1997-2002/Jun 25  
 (c) 2002 The Dialog Corp.  
 File 476:Financial Times Fulltext 1982-2002/Jun 25  
 (c) 2002 Financial Times Ltd  
 File 610:Business Wire 1999-2002/Jun 25  
 (c) 2002 Business Wire.  
 File 624:McGraw-Hill Publications 1985-2002/Jun 25  
 (c) 2002 McGraw-Hill Co. Inc  
 File 634:San Jose Mercury Jun 1985-2002/Jun 24  
 (c) 2002 San Jose Mercury News  
 File 636:Gale Group Newsletter DB(TM) 1987-2002/Jun 24  
 (c) 2002 The Gale Group  
 File 810:Business Wire 1986-1999/Feb 28  
 (c) 1999 Business Wire  
 File 813:PR Newswire 1987-1999/Apr 30  
 (c) 1999 PR Newswire Association Inc

| Set | Items   | Description                                                                                                    |
|-----|---------|----------------------------------------------------------------------------------------------------------------|
| S1  | 1033586 | VOTE OR VOTES OR VOTED OR VOTING                                                                               |
| S2  | 5234563 | SHARE OR SHARES                                                                                                |
| S3  | 4131350 | PREFERENCE? ? OR INSTRUCTION? ? OR DETAIL? ? OR SPECIFIC? ?<br>OR CHOICE? ? OR PROFILE? ? OR CHARACTERISTIC? ? |
| S4  | 4157802 | FORM? ? OR TEMPLATE? ? OR APPLICATION? ?                                                                       |
| S5  | 8490388 | COMMUNICAT? OR SEND? OR SENT? OR TRANSMIT? OR FORWARD? OR -<br>DESPATCH? OR TRANSFER? OR TRANSMISSION          |
| S6  | 2948449 | CONVERT? OR CONVERSION? OR DIGITAL? OR DIGITI? OR ALTER?                                                       |
| S7  | 944953  | (HARD OR ORIGINAL) (2W) (COPY OR COPIES) OR CARD OR CARDS                                                      |
| S8  | 9421    | S1(6N) (RECOMMENDATION? ? OR SUGGESTION? ? OR INSTRUCTION? ?<br>OR IDEA? ?)                                    |
| S9  | 8740    | HOW(2W)S1                                                                                                      |
| S10 | 75743   | PROXY OR PROXIES                                                                                               |
| S11 | 5878    | S1(S)S2(S)S3                                                                                                   |
| S12 | 55938   | S1 AND S2 AND S3                                                                                               |
| S13 | 50060   | S12 NOT S11                                                                                                    |
| S14 | 25233   | S1 AND S10                                                                                                     |
| S15 | 16129   | S1(S)S10                                                                                                       |
| S16 | 21511   | S11 OR S15                                                                                                     |
| S17 | 675     | S3(S)S9                                                                                                        |
| S18 | 22106   | S16 OR S17                                                                                                     |
| S19 | 154     | S6(S)S7(S)S1(S)S4                                                                                              |
| S20 | 6004    | S11 OR S19                                                                                                     |
| S21 | 2916    | S1(S)S3(S)S4                                                                                                   |
| S22 | 139     | S8(S)S21                                                                                                       |
| S23 | 6624    | S20 OR S17                                                                                                     |
| S24 | 379     | S10(S)S11                                                                                                      |
| S25 | 98      | S4(S)S24                                                                                                       |
| S26 | 91      | RD (unique items)                                                                                              |

?t26/3,k/all

26/3,K/1 (Item 1 from file: 20)

DIALOG(R)File 20:Dialog Global Reporter  
 (c) 2002 The Dialog Corp. All rts. reserv.

23323706

Canada NewsWire summary of releases for Wednesday, June 12, 2002

CANADA NEWSWIRE

June 12, 2002

JOURNAL CODE: WCNW LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 3649

?show files;ds

File 9:Business & Industry(R) Jul/1994-2002/Jun 24  
 (c) 2002 Resp. DB Svcs.  
 File 13:BAMP 2002/Jun W4  
 (c) 2002 Resp. DB Svcs.  
 File 15:ABI/Inform(R) 1971-2002/Jun 25  
 (c) 2002 ProQuest Info&Learning  
 File 16:Gale Group PROMT(R) 1990-2002/Jun 24  
 (c) 2002 The Gale Group  
 File 20:Dialog Global Reporter 1997-2002/Jun 25  
 (c) 2002 The Dialog Corp.  
 File 47:Gale Group Magazine DB(TM) 1959-2002/Jun 25  
 (c) 2002 The Gale group  
 File 88:Gale Group Business A.R.T.S. 1976-2002/Jun 24  
 (c) 2002 The Gale Group  
 File 148:Gale Group Trade & Industry DB 1976-2002/Jun 25  
 (c)2002 The Gale Group  
 File 180:Federal Register 1985-2002/Jun 25  
 (c) 2002 format only The DIALOG Corp  
 File 187:F-D-C Reports 1987-2002/Jun W4  
 (c) 2002 F-D-C Reports Inc.  
 File 258:AP News Jul 2000-2002/Jun 25  
 (c) 2002 Associated Press  
 File 267:Finance & Banking Newsletters 2002/Jun 24  
 (c) 2002 The Dialog Corp.  
 File 275:Gale Group Computer DB(TM) 1983-2002/Jun 24  
 (c) 2002 The Gale Group  
 File 349:PCT FULLTEXT 1983-2002/UB=20020620,UT=20020613  
 (c) 2002 WIPO/Univentio  
 File 483:Newspaper Abs Daily 1986-2002/Jun 21  
 (c) 2002 ProQuest Info&Learning  
 File 485:Accounting & Tax DB 1971-2002/Jun W3  
 (c) 2002 ProQuest Info&Learning  
 File 491:CanCorp Canadian Financials 2002/Jun W4  
 (c) 2002 Micromedia Ltd.  
 File 608:KR/T Bus.News. 1992-2002/Jun 25  
 (c)2002 Knight Ridder/Tribune Bus News  
 File 610:Business Wire 1999-2002/Jun 25  
 (c) 2002 Business Wire.  
 File 613:PR Newswire 1999-2002/Jun 25  
 (c) 2002 PR Newswire Association Inc  
 File 621:Gale Group New Prod.Annou.(R) 1985-2002/Jun 24  
 (c) 2002 The Gale Group  
 File 635:Business Dateline(R) 1985-2002/Jun 25  
 (c) 2002 ProQuest Info&Learning  
 File 636:Gale Group Newsletter DB(TM) 1987-2002/Jun 24  
 (c) 2002 The Gale Group  
 File 674:Computer News Fulltext 1989-2002/Jun W3  
 (c) 2002 IDG Communications  
 File 810:Business Wire 1986-1999/Feb 28  
 (c) 1999 Business Wire

| Set | Items | Description                                                                                                                                                                                                                                  |
|-----|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| S1  | 178   | (VOTE? OR VOTING) (S) (PROXY OR PROXIES) (S) (PREFERENCE? OR CHOICE? OR SELECTION? OR INSTRUCTION?) (S) (CARD? ? OR FORM? ?) (-S) (ELECTRONIC? OR AUTOMAT? OR SOFTWARE? OR INTERNET? OR GUI OR INTERFACE OR COMPUTER? OR ONLINE OR ON()LINE) |
| S2  | 85    | S1 NOT PY>2000                                                                                                                                                                                                                               |
| S3  | 51    | RD (unique items)                                                                                                                                                                                                                            |

?t3/3,k/all

3/3,K/1 (Item 1 from file: 13)  
 DIALOG(R) File 13:BAMP